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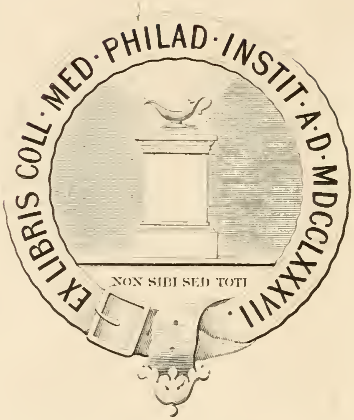
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THE

AMERICAN PRACTITIONER:

A MONTHLY JOURNAL OF

MEDICINE AND SURGERY.

EDITED BY

DAVID W. YANDELL, M. D.
Professor of the Science and Art of Surgery and Clinical Surgery, University of Louisville.

AND

THEOPHILUS PARVIN, M. D., LL. D.
Professor of Obstetrics and the Medical and Surgical Diseases of Women, Medical College of Indiana.

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THE AMERICAN PRACTITIONER.

JULY, 1878.

Certainly it is excellent discipline for an author to feel that he must say all that he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than anything else.—RUSKIN.

Original Communications.

SPINAL IRRITATION.

BY JOHN E. LOCKRIDGE, M. D.

From a long and varied experience in the management of this protean complaint, denominated "spinal irritation" by such writers on the practice as recognize it as a separate disease, I have long since come to the conclusion that it is a disease *per se*, if not indeed *sui generis*. The name is apt enough, it is true, to call attention to the seat of the trouble; but when we come to enumerate the symptoms and manifestations of the disease, we will find that the spine is just about the last part of the economy that we would suspect of being in arrears in its physiology. But, inasmuch as a name intelligibly expressive of both the pathology and accompanying phenomena of the complaint must needs be paraphrastic, I will content myself at this place with a retention of the old appellation, and when treating of the nature and symptoms of the disorder attempt to elucidate some points hitherto doubtful; and will close this paper by annotating a few cases in point.

The *symptoms* of this disease are as numerous almost as there are organs and parts in the body whose functions can be disturbed by alterations from health in the spinal center, from which in part they derive their life and control. These disturbances will occur from above downward, as the so-called irritation may happen to be located in the cervical, dorsal, or lumbar vertebræ. I will enumerate some of them. Beginning with the organs of digestion, I have seen, amongst others, dysphagia from paralysis or tonic spasm of the gullet; apparent stricture of the same; gastralgia, spasm of the stomach, nausea and vomiting, and almost every variety of dyspeptic symptoms. In the respiratory and circulatory organs I have often met with aphonia, spasm of the glottis, asthma, a kind of nervous cough, singultus, and an inability to take a full inspiration; palpitation of the heart, and bellows murmur of the same, intermittent pulse, and feigned cardiac disease of divers kinds and degrees. There are also pains and sensations, either fixed or fleeting, in different parts of the body—in the neck, chest or abdomen. These symptoms will persist in spite of the ordinary rational treatment; or after having been relieved, will recur time and again.

If now the practitioner examine the spine, which is not complained of or suspected, to his surprise he will find a point tender on pressure; the patient will start up as if electrified, and complain of the heart or stomach, or be thrown into an attack of asthma, or palpitation, or gastralgia, or colic, as the case may be, or as the organ is under the control of nerves sent out from the point irritated. The pressure should be made very carefully with the index finger downward between the spinous processes, and laterally between the same, as well as between the arches of the vertebræ; and if the patient be over-sensitive to touching, or if there be any doubt in the mind of the practitioner as to the real existence of tenderness, he should dip a sponge in hot water and pass it slowly down the column, and if tenderness exist at any point the patient will surely give some sign. The tenderness may be confined to a single intervertebral space, or there may be several together tender, with one more so than the rest, gradually shading off; or again the whole spine may be hyperesthetic on pressure. In short, I would insist that a careful examination of the spine be made in every case suffering from one or more of these pains, aches, spasms, or sensations, whether fixed or fleeting, without fever or appreciable organic change to account for so great and often so persistent suffering; and especially if the symptoms persist or recur after a careful course of anodynes, antispasmodics, and alteratives. I have, time and again, seen cases of apparent cardiac disease, or gastralgia, resist ordinary treatment for years, and finally yield promptly and permanently under treatment directed *wholly* to the spine; and I am sorry to say that I have been called upon to treat a recurrence of neuralgia of the stomach, colic, and the like, half a dozen times in a year, and I never did suspect the true nature of the trouble.

The *nature* of this disease is not well understood. Pathologically it is entirely distinct from active congestion, inflammation, atrophy or hypertrophy, induration or *ramolissement*, or any other affections of the medulla spinalis involving organic lesions or destruction, with the resultant paralysis of the parts below. Nor have I ever seen it, to any great extent, influence locomotion; sometimes, however, a slight degree of numbness or anesthesia is complained of in the extremities. Its nature has generally been ascribed to a rheumatic or gouty condition of the ligamentous structure of the spine. This must be erroneous in the vast majority of cases, at least; for, in the absence of any history of rheumatism or gout in any other portion of the body, and in the total absence of pain or uneasiness about the spine even on movement, it is difficult to imagine that either of these could exist for months and even years without having been suspected.

In the absence of an opportunity to observe the morbid anatomy, I have long since regarded it as some kind of *passive congestion* of the membranes of the cord, and most likely the *pia mater*, arachnoid, and the loose areolar tissue by which the latter is connected with the medulla spinalis. The engorgement may be sanguineous or serous, or both. The arachnoid is scarcely susceptible of congestion itself, but the surrounding areolar tissue is, and the irritation is most often met with in the cervical and dorsal regions, where this tissue is most abundant. Some anatomists contend that these slender filaments of areolar tissue are nervous fasciculi, and that they arise from the arachnoid, and are analogous to those of the sympathetic, and that there are also ganglia to be found here. But, be this as it may, it is very easy to understand how any alteration in structure here from congestion or infiltration, or both, must irritate the outgoing spinal nerves, which impression will be conveyed centrifugally, giving rise to the symptoms enumerated. In those cases in which the disorder is manifested in the internal organs, which indeed are very numerous, the impression is conveyed through the catenation of the spinal nerves with the external branches from the ganglia of the great sympathetic, by which system most of the organs are richly supplied, and some of them, indeed, exclusively.

The *cause* of this disorder is, in many cases, obscure. It is most often met with in the higher walks of life, in those who lead an inactive life; in those of a nervous or phlegmatic temperament, whose organization is rather below the healthy standard; and in such women as are disposed to hysteria. In the South, it is often met with in the case of ladies of lethargic habits, and who are indisposed to locomotion. It is more often met with in women than in men, and more often during the years of menstruation than before fourteen and after forty-five. Girls under fourteen and men are by no means exempt from it; but it very rarely occurs in boys. I am very sure that whatever tends to enfeeble either of the great systems of the organism, whether during employment or leisure, or whatever favors local congestions, superinduces this disease. I have often met with it in the cases of sewing-girls, school-girls, teachers, and ladies who spend much of their time at embroidery and needle-work. Diseases and displacements of the uterus of long standing afford a fruitful cause.

The *diagnosis* of the disease is by no means difficult; yet I have reason to believe that many cases have gone on for months, and even years, without having their true nature ever suspected; and a careless or inexperienced practitioner might direct his treatment quite a while to an alleviation of the symptoms before suspecting the true nature of the trouble. One of the most remarkable features, indeed I will say an almost pathognomonic symptom, is the entire absence of pain or uneasiness of any kind at the point of spinal irritation, except on pressure. This is true in the vast majority of cases, notwithstanding the most varied motion. It is the absence of this pain that usually throws the physician off his guard. Another important sign is the singular absence of fever, notwithstanding the feigned disease in some organ or structure may be violent and persistent, with a great degree of resultant soreness on pressure.

The disease is, of course, most apt to be confounded with organic or functional diseases of the organs implicated, and in the organs the disorder is apt to be attributed to some delinquency inherent to the structure itself. The absence of fever, a careful examination for structural changes, and above all a persistence of the symptoms in spite of a well directed treatment, must direct the physician to a right conclusion. For instance, I was called to see a lady, ten years ago, who had a pain in her stomach. The doctor in attendance thought it was rheumatism, for in fact the lady had had rheumatic fever several years before that. It had resisted, for several weeks, anodynes, and colchicum, and fomentations, and even blisters to the stomach. On examination, a tender point was found in the dorsal spine, pressure there aggravating the pain in the stomach. A small blister to the spine relieved the stomach like magic, and there was never any return of the trouble, nor was there the least pain or uneasiness at the time in any other portion of the body.

In rheumatism of the spine, lumbago and sciatica, there is pain on motion and at rest, and the tenderness on pressure is in the *erector spinæ* and other muscles of the back, rather than in the intimate structure of the column. In *active* congestion of the medulla spinalis, there is uneasiness complained of at the point of afflux, with more or less passivity or incipient paralysis of the parts below this point; and a sense of constriction around the body on a level with this point, as if a cord were drawn *taut*, is almost a pathognomonic symptom of active congestion. From spinal meningitis, myelitis, locomotor ataxia, tetanus, hydrophobia, and the like, I take it for granted that the differentiation is sufficiently easy for the most careless observer. Tumors pressing upon the ganglia and branches of the great sympathetic within the chest or abdomen, and thus giving rise to feigned disease in the organs supplied by them, are more apt to confound the careful practitioner; and this is notably true as regards the air passages, heart and stomach, cancer and other tumors of the greater curvature of the stomach, of the liver, the pancreas, the transverse colon, and aneurism of the abdominal aorta at the usual point where its parietes are weakened by the hiatus for the cœliac axis. Any of these tumors may press upon the semilunar ganglion and the radiating fibers constituting the solar plexus, and through these and the splanchnic nerves the impression will be propagated to the organs of the chest and abdomen, and thus a functional turmoil may be kept up in one or many of these viscera. I believe it is by the catenation of the internal or visceral branches of the ganglia with the terminal branches of the *par vagum*, and not by direct encroachment, that dyspeptic symptoms, gastralgia, nausea and vomiting, palpitation and cardiac murmurs, and the like, are kept up. So it will be wise for the practitioner, in these obscure and trying cases, to examine very carefully for an abdominal tumor.

Before quitting this part of the subject, I will say a word about the character of these cardiac murmurs, which may aid some one who is in doubt whether he has an organic or merely functional case to deal with. Like the hygremic murmur, in my experience this murmur produced by perverted nervous influence, whether the pressure and consequent irritation of the roots be from congestion or serous infiltration within the spinal canal, or from the pressure of a tumor outside (ante?), yet I have always found the murmur to be the *bruit de soufflet*, the *bruit de scie*, or the filing or rasping bruit, which is generally ascribed to roughness of the orifices or valves, and which is due to the deposition and organization of the normal products of inflammation. The regurgitant murmurs are produced by an irregular contraction or spasm, or undue relaxation of the fleshy columns, thereby either drawing the *chordæ tendineæ* and attached valves short of the auriculo-ventricular foramen, or allowing the valve to be driven through into the auricle at each ventricular systole; and in either case producing a murmur. This is especially true of the *columnæ papillares*, which are free in their middle, being attached merely by one extremity to the ventricular parietes, and by the other to the *chordæ tendineæ;* and hence must be capable of contraction and relaxation independently of the ventricles.

The *prognosis*, under proper treatment, is singularly favorable. Indeed, I know of no circumstances under which the physician is better rewarded in gratitude and reputation than right here, in affording prompt relief by the exercise of a very little care in the proper direction of his treatment. In those cases that have been overlooked for years and years, it will require weeks and months often to restore to perfect health, not only the spine but those organs and structures secondarially lashed into semi-organic disease. After having been apparently relieved the spinal tenderness is liable to recur again and again, but in the end a healthy condition will be restored. I have seen cases that I had every reason to believe had existed for *ten* years, and have often met with the disease of from *two* to *five* years' duration; and I have seen the heart appreciably enlarged from long-continued overaction, valvular regurgitation and distention, and the like; also passive congestion of the lungs and other organs, return to their normal condition under treatment directed almost wholly to the spine. According to my experience in the disease, and it has not been small, there is no disposition in the spinal congestion, or whatever it may be, either to right itself or to go on to permanent organic change or disorganization of the tissues; and this peculiarity of behavior, I think, almost stamps it as a disease *sui generis*, just as tetanus is or hydrophobia is. Notwithstanding the fact that I have seen the most rational constitutional treatment resorted to for months, and anodynes and antispasmodics for the organic manifestations, yet so long as the real seat of the trouble was unattended to, the patient was liable to a recurrence of the symptoms again and again. I have no doubt but that a continuance of the spinal irritation is capable of producing organic changes in the structures implicated which are beyond repair, and that disorganization of the cord at the seat of the pressure may ensue, and as a result many cases have proved fatal; but such a termination I have never seen.

The *treatment* is sufficiently simple and rational. A course of counter-irritation to the spine is of the first importance, and in many cases is all that is required. A succession of small blisters, or pustulation with croton oil, in some cases it may be necessary to apply a cup and take an ounce or two of blood, and in very persistent cases a seton might be advisable; but I have always succeeded with blisters and croton oil. Where the tenderness extends for several inches, I apply a long, narrow strip of blister, and repeat again and again, if necessary.

In those cases in which the general health is below the normal standard, and the patients are pale, nervous, weak, lethargic, indisposed to exercise, with cold extremities, and disposed to local congestions, and have a weak and irritable heart, and are threatened with syncope, or do actually faint on rising up suddenly,—in such cases a course of general and special tonics and alteratives must be used in addition to the counter-irritation, without which even these would be powerless to effect a cure. Of these tonics I have found iron, nux vomica, phosphorus and digitalis, variously combined, to be the most efficacious. In those cases in which there is manifested a weak and irregular heart, with a bellows murmur and some hypertrophy, together with coldness of the extremities and a disposition to syncope, I have seen a pill containing two grains of the pyrophosphate of iron and half a grain each of ext. nux vomica and pulv. digitalis, three times a day, seem to work wonders almost. Of course, suitable exercise must be insisted on in those persons who have been in the habit of sitting and *lounging* a great deal, and a change of occupation is necessary in some cases, and suitable clothing and diet in all cases.

I will now close these remarks — however crude and imperfect they may be, yet I have attempted to be faithful — by merely annotating a few cases of the disease in question by way of impressing what I have said; the succession is numerical and not chronological.

Case I. This was a popular actress, aged seventeen years. She was by no means weak or anemic, and all the functions of the body seemed to be normal. For about two years she had had what seemed to be attacks of colic: she would suddenly, and often in the midst of a play, complain of a severe pain in the region of the stomach or transvere colon—would swoon away and go into spasms, and fall into a semi-comatose state. She had been in the hands of a great many physicians, it being necessary to employ one at nearly every city she stopped at. I was informed by both her father and the manager that none of these doctors could assign any reason for this "spasmodic colic," as they called it. Her spine had never been complained of, nor had it been suspected or "touched." I found her in a semi-comatose condition, totally unconscious of the ordinary examination of the organs I was making, and which developed nothing wrong; but on making pressure between the spinous processes of the vertebræ from above downward, when I came to the lower dorsal region she started up as if electrified, and immediately complained of pain like colic, and went into a kind of a spasm. The tenderness in this case was confined to almost a single intervertebral space, and was as palpable and perfect a key to all of her sufferings as it was possible to conceive of.

I applied a single cup to the tender point, and drew about two ounces of blood, and prescribed a blister, two by three inches, to be applied and repeated as long as there was any tenderness on pressure, or as long as there was any internal disorder. I also ordered iron, strychnia and phosphorus, for some weeks as a nerve tonic and equalizer of the circulation. Four months afterward this lady had had no return of the symptoms.

Case II. I was called in consultation to see a lady, about thirty or thirty-two years of age, who was suffering from what seemed to be an attack of asthma; and so alarming were the symptoms, that three or four doctors were sent for at the same time. She was rather delicate-looking, but had no organic disease anywhere, and was not subject to asthma before the accession of the present attack, which had baffled the efforts of the attending physician for several days. On examining the spine, the lower cervical and upper dorsal regions were found to be exquisitely tender, and she could be thrown into one of these spasmodic paroxysms of the bronchial tubes at will by even slight pressure. A long strip of blister was at once applied to the spine, and as a palliative a teaspoonful of a mixture of equal parts of tinct. opii camphor., Hoffman's anodyne, and tincture of valerian, was given every few hours. As soon as the blister drew, the symptoms disappeared like magic. I saw this case no more, but her husband told me, some months afterward, that she had had no further attack, but that on several occasions there had been some threats of an attack, and that he found spinal tenderness and applied the blister until all the symptoms ceased. Six or seven years afterward this lady remained in her usual health.

Case III. This was a lady about thirty years of age, somewhat anemic, with a tendency to cold extremities and local congestions; the slightest blow or pressure would produce ecchymosis, especially of the extremities. For two or three years she had been troubled with irregularity of the heart's action, with the most distinct and annoying mitral regurgitant murmur I have ever heard, distinctly recognized with the ear several inches from the chest. There was an appreciable enlargement of the heart, apparently a general hypertrophy of the organ; and the lady had fallen as if in syncope several times of late on rising suddenly from her bed. The physician in consultation construed the murmur as being hygremic; I was fearful that it was the result of rheumatism, of which she had had two attacks years before. Under a general tonic and alterative plan of treatment she improved in general health, and the syncopal trouble mitigated; but there remained very much uneasiness about the heart, palpitation, intermittent pulse, apnœa, at times, and the murmur remained as distinct as ever. After some months, I happened to examine the spine and found the whole dorsal region exquisitely tender on pressure, but yet there was no complaint of pain, ache, or other uneasiness there. The slightest pressure would greatly aggravate the cardiac symptoms. A blister was immediately applied to the spine, and repeated time and again; the symptoms began at once to yield, the murmur grew fainter and fainter, and pretty soon was heard only at times; and in a few months all trouble ceased, and her general health improved, so that in two years she weighed one hundred and ninety pounds, her weight previously ranging from one hundred and twenty-five to one hundred and thirty. She is to-day, after a lapse of ten years, in perfect health and weighs one hundred and sixty pounds.

Case IV. A young man, aged twenty-eight or thirty years, had been the subject of supposed cardiac disease for eight or ten years; he had been under the treatment of a number of physicians, and all agreed that it was heart disease and incurable. He was a mere skeleton, had frequent attacks of prolonged syncope, and his death was expected any day, and to all outward appearance he was in the very last stage of organic disease of the heart. I examined him in the morning before rising, and at the time I could absolutely find no sign of cardiac disease; there was no murmur, no hypertrophy, no intermission, and no rhythmical alteration; the heart's action was feeble, it is true, but the man was a perfect wreck. I could find nothing wrong, except very slight dullness on percussion and bronchophony beneath the clavicles, which I attributed to passive congestion of the apices of the lungs.

On an examination of the spine, I found great tenderness on pressure over nearly the whole of the dorsal vertebræ and an immediate accession of some of the cardiac symptoms. To the utter surprise of himself and friends, I gave the positive opinion that there was no real organic disease of the heart, and that in all probability he would regain his long-lost health. I urged him to keep his spine pustulated with croton oil for some months; and as a tonic and for the pulmonic induration, to take thirty drops, three times a day, of the syrup of the iodide of iron. He carried out the treatment faithfully, and I saw nothing of him for two years, at which time he was on his bridal tour, perfectly restored; and now, after a lapse of twelve years, he is in perfect health and weighs about one hundred and eighty pounds.

INDIANAPOLIS.

NITRATE OF SILVER IN CHRONIC CYSTITIS.

BY CHARLES W. MILES, M. D.

In the Louisville Medical News of June 1st will be found a very interesting paper on chronic cystitis, by Dr. Joseph W. Thompson, in which he very highly extols the use of strong solutions of nitrate of silver in the treatment of chronic cystitis. I wish to add the results of my own experience corroborating that of Dr. Thompson.

For the past eighteen months I have been following this plan of treatment in every case that would admit of it (six in number), and in no instance have I failed to obtain the most satisfactory results. My invariable rule is to begin with a weak solution, say two or three grains to the ounce, and increase its strength as the bladder will tolerate it. Usually an injection every two or three days, with an increase of two and a half grains of the silver to the ounce at each injection, will meet the indications. I have not been in the habit of washing out the bladder, as is recommended by Dr. Thompson; but I simply draw off the urine and inject immediately through the same instrument, directing the patient to retain the injection, if possible, until it is completely neutralized by the accumulating urine. This plan possesses the twofold advantage of being much less painful, as the evacuation of the bladder immediately after an injection is generally followed by a great deal of suffering, and of securing the complete effect of the remedy.

I can not subscribe to the use of from twenty to sixty grain solutions of nitrate of silver in the beginning of the treatment, as is recommended by Dr. Richardson, of New Orleans. I have recently witnessed, in the practice of a very eminent surgeon, the most alarming symptoms of shock produced by the use of a five grain solution, when by a gradual increase from two grains the patient afterward bore twenty-five grains with comparative comfort. Indeed, I have never met with a case that required this heroic treatment at any stage of the disease. None of my cases required over twenty-five grains, and a majority yielded to a ten grain solution.

In February last Mrs. R., the mother of five children, was sent to me by a medical friend, to have a vesico-vaginal fistula established for the relief of an obstinate cystitis of five years' standing. I injected a two grain solution of silver, and increased the amount two grains every other day thereafter until twenty-four grains to the ounce were used, when she was discharged cured.

My mode of injection is with an ordinary silver catheter and a metallic syringe. When the pain following an injection is very severe, I usually order a hot hip-bath, or I inject a little olive oil, which will secure immediate relief.

It has been my practice to administer, in connection with this treatment, a solution containing chlorate, bicarbonate and iodide of potassa with syrup of buchu, together with some mucilaginous drink, as flax-seed tea. These, with proper attention to diet, habits of life, etc., I have found to be all that is required in the treatment of a majority of cases of cystitis.

JORDAN, KY.

UPWARD DISLOCATION OF THE STERNAL END OF THE CLAVICLE—TREATMENT BY THE IMMOVABLE PLASTER-OF-PARIS DRESSING.*

BY JOSEPH EASTMAN, M. D.

J. H., aged thirty-five years, a well developed, muscular German, by occupation a baker, fell down a stairway, receiving an injury of the left clavicle, for which he was admitted to the Indianapolis City Hospital, September 29, 1877. I saw the case soon after in consultation with Dr. Davis, superintendent of the hospital, and Dr. Ritter, assistant physician, who, previous to my visit, had diagnosed upward dislocation of the sternal end of the clavicle.

On examination of the case, I found the bone resting upon the larynx, seriously embarrassing respiration. The figure of eight bandage, with compress, having been tried a number of times and to no purpose, by the house surgeons, we united our efforts in the application of Sayre's bandage for fracture of the clavicle, substituting the ordinary roller for adhesive plaster, as suggested by Dr. Henry Van Buren, of Chicago. This also failed to retain the bone in position for any considerable length of time. Whenever the patient drew a full breath, so as to fully elevate the apices of the lungs, the bone would slip from its normal, back to its abnormal position upon the larynx.

Having observed what I believed to be at least one cause of non-retention of the dislocated bone in position—namely, the distension upward of the thorax—I determined to suspend thoracic respiration to the utmost extent consistent with the tolerance of the patient; and to this end, at the surgical clinic, October 8, 1877, encased the entire thorax in a plaster-of-paris jacket, carrying it well up under the clavicles, while the arms were elevated by assistants. We next brought the bone into position with the arm across the breast, retaining it there by the modified Sayre's appliance before referred to. We then continued the mold of plaster upon the arm, filling in plentifully over the injured joint, and on both sides of the humerus. When the plaster was fully set, there was no perceptible elevation of the lungs, his respirations being as completely abdominal as could be desired.

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* Read before the Marion County (Ind.) Medical Society, and before the Indiana State Medical Society.

The patient wore this appliance for about six weeks, when it was removed and he was discharged from the hospital, with perfect use of his arm. There was some swelling over the torn ligaments, but the bone appeared to Dr. Todd, and other gentlemen present, as perfectly in place as when first reduced.*

The pathology of this dislocation is now well known, from a case which was carefully dissected and published by Professor R. W. Smith, Dublin Journal of Medical Sciences, 1872. (See Holmes's Surgery.) This dissection showed that the head of the bone, carrying the interarticular cartilage with it, had been thrust between the two heads of the sterno-mastoid muscle, and lay in contact with the opposite clavicle. The sterno-hyoid muscle was behind it; the sternal tendon of the sterno-mastoid was tightly stretched over it, forming a considerable prominence during life: the rhomboid ligaments were ruptured, as well as the capsule of the joint. In my case, the clavicular fasciculus of the sterno-mastoid was carried with the bone.

Professor Gross says dislocation of the clavicle, as compared with fracture of that bone, is rare; there being probably fifty cases of fracture to one of dislocation. The cause of this remarkable difference is to be found in the exposed situation of the bone, and the great shortness and strength of its ligaments, which render it more liable to yield in its continuity than at its articulation with the sternum or scapula. Erichsen expresses nearly the same opinion.

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* This patient was presented to the Marion County (Ind.) Medical Society, May 14, 1878, and examined by some thirty members, who united in the opinion that the result was as perfect as attends the treatment of dislocations in other parts of the body by the most approved methods.

Dr. Gross further adds:—"Luxation upwards is extremely rare, so much so that some of the best surgeons doubted the possibility of its occurrence; but within the last twenty years the cases reported by McFarlane, Baraduc and Malgaigne, establish its claims to the distinction of a new species." (Vol. II, 4th ed., p. 47.)

Malgaigne has collected four well authenticated cases of this dislocation, and says reduction is sufficiently easy, but thinks a perfect retention impossible, although the remaining deformity is but slight; and in no case has the function of the arm been seriously impaired.

Professor Hamilton saw one case in consultation with Dr. Rochester. They molded a gutta percha splint to the clavicle and ribs; but notwithstanding all this the bone became displaced. (*Vide* Hamilton, Fractures and Dislocations, 3d ed., 1866.)

Holmes states that this form of dislocation is extremely rare, and that hitherto treatment has been unsuccessful, though a good use of the arm may be anticipated.

Mr. Erichsen (last edition, 1878,) says upward dislocation is extremely rare, there being but eight cases on record. He adds—"I doubt if the bone, though replaced, can be maintained in a good position."

Dr. Gross remarks with reference to the various dislocations of the clavicle that, seeing how difficult it is to keep the bone in position, he would not hesitate to fasten the ends of the bone with a silver wire.

Most authors agree that the treatment of fractures and dislocations of the clavicle, as compared with that of other bones, is somewhat unsatisfactory. I offer the suggestion that the lack of satisfactory results is due to the difficulty in carrying out the following most important principle in the treatment of fracture or dislocation, namely:

First. The bone or bones must be replaced in normal position and retained there, fixed and absolutely immovable.

Second. We must not only *place*, beyond any possible motion, the bone or bones dislocated or broken, but immobilize also all bones, joints and structures contiguous to, or in any way associated in function with, the dislocated or fractured bone, either by muscular attachment or continuity of osseous structure.

To carry out this principle in the treatment of the clavicle, we must suspend motion as far as possible in the dorsal region of the spine, in the sternum, ribs, humerus and scapula.* To do this, we must have something that will assume the exact form of the entire thorax, and when set *shall* retain its shape. I know of nothing that will do this so effectually as a plaster-of-paris jacket, carried if necessary over the shoulder, molded well into the axilla, around the scapula, and between the *ribs*.

In conclusion, I reassert my opinion, founded on a very considerable experience both in civil and military practice, that the success heretofore obtained by the use of the numerous appliances for fracture and dislocation of the clavicle, has been contingent on their fulfillment of the following condition, namely:—the bone fractured or dislocated, and all contiguous joints and structures, must not only be placed but *maintained* in a condition of *absolute* immobility.

INDIANAPOLIS.

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* "Besides, even in the common respiration, the costæ and sternum aforesaid, where the other end of this bone is adnected, together with motion of the diaphragm, rising and falling, especially if the same be extraordinary, as in coughing and sneezing, are able to undo your work; not to mention the situation thereof, less capable of being so well secured by bandage as many others. All which, duly considered, it is no wonder that upon many of these accidents, although great care has been taken, these bones are sometimes found to ride, and a protuberance is left behind, to the great regret particularly of the female sex, whose necks lie more exposed, and where no small grace or comeliness is usually placed." (*Vide* Hamilton on Fractures and Dislocations, ed. 1866, p. 189; from the "Art of Surgery," by Daniel Turner, Vol. II, 1742.)

ULCERATION OF THE OS UTERI.

BY A. G. CRAIG, M. D.

Formerly Resident Physician of the Cincinnati Hospital.

De Quincey, in a note to his essay on the Glory of Motion, quotes from Von Troil's Iceland a chapter entitled "Concerning the Snakes of Iceland," and the entire chapter consists of these six words—"*There are no snakes in Iceland.*"

And with the above title I will commence this article, with the dogmatic statement that there is, correctly speaking, no such a disease as ulceration of the os uteri. To this statement I wish to make three exceptions, namely—syphilitic ulcer of the cervix uteri, a disease so rare that not one practitioner in ten thousand has ever met with a case; cancer of the cervix uteri; and an ulceration of the os uteri caused by prolapsus in the third degree, the cervix coming in contact with some external substance, the clothing for example, and veritable ulceration from friction taking place. Since Henry Bennett described so many different varieties of ulcers of the cervix uteri, numerous articles have appeared in the medical journals of this and other countries describing the affection; and even at the present time we find many medical writers who speak of simple ulceration of the cervix uteri as being a very common disease. In a recent article in the Philadelphia Medical and Surgical Reporter, the writer says:

"All acquainted with the practice of an out-patient department for the diseases of women, can not fail to have been struck by the very numerous cases of ulceration of the os uteri presenting themselves for relief. The cases are so common, the distress of the affection so debilitating, the discomfort to married life so great, and the cure so within the limits of the ordinary practitioner, that we hope to do good service by a few remarks on the subject. We shall classify the cases, dividing the os into three zones:

"1. Ulceration at the os uteri on one or both lips.

"2. Ulceration extending to half the inferior part of the cervix uteri.

"3. Ulceration involving the whole of the cervix and os."

What is an ulcer? Dunglison says it is "a solution of continuity in the soft parts, of longer or shorter standing, and kept up by some local disease or constitutional cause." What is the so-called ulcer of the cervix uteri? Is it a solution of continuity of the structures of the cervix? Is it not rather "the development of a surface of granular character on the smooth face of the cervix and just within the os?" Who would call trachoma, ulceration of the conjunctiva? And yet the so-called ulcer of the cervix, upon the removal of the pus which covers it, presents an intensely red, granular, hemorrhagic-looking surface, not depressed below, but often elevated above the surrounding mucous membrane, resembling very much the conjunctiva when affected by granular degeneration. I have frequently been called in consultation to see multiparous women, whom the attending physician had been treating for ulceration of the os uteri, which upon examination disclosed an ulcer of large size which he had been cauterizing for months without the least benefit. But the large so-called ulcer proved to be extensive cervical laceration.

Dr. Thomas, in his excellent work on the Diseases of Women, enumerates the following causes of this affection:

"*Causes.*—The predisposing causes are:

Enfeebled general health.
Spanemia.
The scrofulous diathesis.
The syphilitic diathesis.

Those which are exciting are the existence of:

Displacements.
Endometritis.
Laceration of cervix.
Areolar hyperplasia.
Abuse of sexual intercourse.
Vaginal leucorrhea.
Pessaries which touch the vaginal face of the cervix."

It will thus be seen that there can be no routine method of treatment of the so-called granular ulcer of the cervix. If the patient is feeble and anemic, iron and the bitter tonics will be indicated and good regimen. If she is scrofulous or syphilitic, iodide of potassium and cod-liver oil may be had recourse to in the former, and mercury and iodide of potassium in the latter condition. If there is displacement of the womb, restore it to its normal position, and with a properly adjusted pessary endeavor to keep it there. Should the so-called ulcer be caused by endometritis, areolar hyperplasia or vaginal leucorrhea, attention should be directed to their relief, at the same time that this, one of their results, is treated. Until the patient is well, sexual intercourse should be interdicted. Lacerations of the cervix should be cured by a proper surgical operation. Pessaries which by friction produce irritation and inflammation of the vaginal face of the cervix, of course should be removed. Granular degeneration being generally a secondary affection, the primary disease should be ascertained and both be treated simultaneously.

GHENT, KY.

FOREIGN CORRESPONDENCE.

DR. YANDELL'S LETTERS FROM ABROAD—No. III.

London, England, June 1, 1878.

If the road to the bad is paved—as I have heard it was—with good intentions, then I have been laying down a deal of fresh metal recently, for many a time and oft have I resolved to write to you, and stopped at that. The mere resolution to get up a letter can't be put in type, and so for all practical purposes is a bit of sounding brass with, as the Used-Up Man in the play says, "nothing in it." But my growing repugnance to any arm which is mightier than the sword on the one hand, and a hundred agreeable things to do and hear and see on the other, irresistibly lead me to put off, as long as I can, the days when I am forced to exclaim, "I have no pleasure in them!" And such to me are those days on which your drafts for certain fixed sums of literary coin fall due. I always wish, as such times approach, that I dwelt at the North Pole, where there are intervals of six months between the days. But as I am in London instead, I must needs write by the steamer of to-morrow, lest the July number of the American Practitioner appear without the letter you so kindly (?) promised our readers.

The membership of the University of Edinburgh Club in London is composed of the alumni—medical and others—of that ancient institution who reside here. They give a quarterly dinner, to which a few guests are invited, and where as one of the latter I spent a couple of hours most agreeably last Wednesday evening. The present chairman, Dr. James Crichton Browne, is a gentleman who needs not to be introduced to his brethren on our side the water. He presided with much dignity, and in proposing the toast of "the University of Edinburgh," he exhibited a grace and fluency of speech which are not usual among Englishmen. He reminded me forcibly of Edward Everett. Their style of speaking, indeed, is much the same. A member of parliament said to me the other day, "if Sir James Paget had studied law instead of medicine, he would have been Lord Chancellor of England." I believe it. He, too, is a charming speaker. And last night, after having listened to the beautiful tribute paid to the old University by Dr. Browne, I could but think that his real place was in parliament, where the field for usefulness would be far larger than his present one among the mad-folks, and in which his striking presence, sonorous voice, finished elocution and captivating rhetoric, would give him at once a commanding position, and make him a truly fitting representative of the great interests of our noble calling. It is positively refreshing, in these days of dull, monotonous teachers and duller and more monotonous preachers, to meet with such a speaker, with one who, having a full clear voice, is willing to let it go out of him in a smooth way,—who neither hems nor haws, nor hesitates nor ahs, but who drives with earnestness right ahead, and being done, quits.

Should Dr. B. object to politics, I would urge him to divide his time between visiting the Lord Chancellor's lunatics and lecturing on elocution and rhetoric in some one of the leading institutions of this metropolis. [Do you know I believe there would be fewer mad-folks, if there were more good speakers in the pulpit and out of it?] And if he accepted this professorship, I should make attendance upon the course compulsory with every student of divinity and with all medical students who looked forward to becoming lecturers. Nay, more, I should urge some men now engaged in teaching in schools, not a hundred miles from your office, to lose no time in booking for the first course.

Mr. Erichsen said to me yesterday, "You, Americans, are all good speakers. You seem to have been born on the stump." How little he knows of the men in some of our medical schools—of the men who fill some of our pulpits! Sir James Paget asked, the other evening, "How is it that you are all orators?" I could have told the amiable baronet that I have found in the great city of New York, and in the still greater city of Boston, and the yet greater city of Louisville, as miserable drawlers, as wretched mumblers and as inaudible withal, as are to be found on the globe. And it is such as those on whom I would enjoin silence in public or require to have lessons in elocution. And in doing so, I fancy I should add as much to the life of the average medical man as the American Practitioner shortened the lives of such of them as appeared in the Biography of American physicians. Don't you believe it?

Yesterday, as I was going into the Langham, I met our valued friend and very distinguished countryman, J. Marion Sims, who had come over from Paris to visit a patient. He said, "You know, Yandell, I have to work still. I hope, too, there are a good many years of work in me yet." And he certainly looks as if there were. Indeed, I never saw him in more robust health—the same quick-moving, vivid man that to me he was many a year ago. "Meet me to-morrow at the Samaritan, and we'll see some ovariotomies," he added, and we parted. At the time named I found him at the hospital, where I witnessed two ovariotomies—one a very smooth case, a unilocular cyst and no adhesions, done by Dr. Thornton; the other was multilocular, colloid contents, some adhesions, altogether what they call here a "nasty" case, was performed by Dr. Bantock. The operations were done throughout under antiseptics; the pedicles were dropped back into the abdomen, the peritoneum and very little cellular tissue or skin included in the sutures, which in one case were of silk, and in the other of silk gut. The order, quiet, deliberation and thoroughness which marked the entire work were beautiful to see. The clamp is no longer used by either of the physicians. The pedicle is returned to the cavity, and the incision closed by sutures. Verily, how things have changed at the Samaritan since antiseptics were introduced and the illustrious Mr. Wells withdrew!

I endeavor, my dear Parvin, to sandwich the regulation medical meats between the slices of holiday pleasures, lest giving you too continuously of either I grow monotonous.

I hope it is a relief to you to find one doctor in all the world who doesn't write to you exclusively of the "shop," or describe a case and ask for your opinion of it by "return mail," without inclosing so much as a stamp for postage.

I started awhile ago to tell you of a dinner—that at which Dr. Browne presided. Being a club of Scotchmen, the dinner would not have been complete unless it embraced some national dish. This it did. In fact it embraced two—"Haggis" and "Sheep's Head and Trotters." The former you have read about in Burns's poems. Always national, Burns has made it classic. Haggis is certain parts of the sheep, made richer with tallow and flavored with onions, boiled in the stomach of the same animal, as you boil puddings in a bag. The parts used are portions of the small intestines, the liver and the "lights." These, along with the tallow and onions, are minced fine, and salt and pepper being added, the whole is placed in the sheep's paunch and boiled until thoroughly done. The taste of the stew is not unlike that of stewed kidneys. I can understand how a hungry man might stow away a quantity of haggis, for, after all, its ingredients are quite the same as those which enter into many forms of sausages that are much eaten. I confess to being about haggis, however, as Mr. Weller was about "weal pie." Much would depend with me on the lady "wat makes it." Burns addressed it, as the distended stomach lay glistening, steaming on the platter—

"Great chieftain o' the puddin' race."

And concluded with:

"Ye pow'rs, wha mak mankind your care,
And dish them out their bill o' fare,
Auld Scotland wants nae stinking ware,
That jaups in luggies;
But, if ye wish her gratefu' prayer,
Gie her a haggis."

I should and welcome, at least to all my share. Burns, you know, wrote before Soyer's time; and though his genius belongs to mankind his palate was wholly uninstructed, altogether provincial. He had never traveled. He had never broken Vienna bread, or tasted Virginia biscuit, or seen a French volaille, or enjoyed an English grill. Had he lived to do so, he would have omitted the lines "To a Haggis" from the next edition of his poems.

Seated between Brunton and Ferrier—both Scotchmen—I next tried sheep's head. They declared they liked it, and they ate it as if they meant what they said. For my part, I declare that I don't. Do you remember what I wrote in my letter from San Antonio, two years ago, about *enchilada* and *tamalis?* I repeat those words, and a good many more of the same kind, about sheep's head. Highland breezes, Highland jaunts, and Highland whisky, may work me up to the point of eating it again, but be sure nothing else will. Do you know how it is prepared? Thus:—The head is not skinned, but the wool is singed off, when the head is boiled. The flavor of it didn't remind me of shearing hogs, where one gets much cry and little wool, but quite the reverse. You may improvise the counterpart of the dish any day by singeing a bit of sheepskin, throwing it in boiling water till it gets soft, and serving it hot. If you like it, you can have it with less trouble and expense than the Edinburgh University Club gets theirs, which is specially prepared for them by a direct descendant of the first Scotchman who ever eat singed sheep's head.

Dr. Graily Hewitt will soon put in book-form the Harveian Lectures* which he gave for 1877, and which appeared some months ago in the Lancet. He was good enough to show me, the other day, some of the woodcuts for the volume. I thought them very bold and faithful. I need not predict that the work will have a large sale in America, where Dr. Hewitt's writings are so much read. You remember how sad the expression of Dr. H.'s face was? It is sadder still now. His asthma is growing on him. Don't you wonder at his having been able to do all the work he has done while oppressed by that most dismal of diseases? I saw him remove a uterine fibroid a few days since by the scoop. He had performed a similar operation on the same patient a couple of years before.

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* Harveian Lectures on the Mechanical System of Uterine Pathology. Delivered before the Harveian Society of London.

Monday last I witnessed the distribution of prizes won by the medical students of University College. Sir Henry Thompson, Dr. Graily Hewitt, Dr. Burdon Sanderson, Dr. Roberts, Dr. Ringer, Dr. Buchanan, Mr. Heath, Mr. Marshall, and other medical men of note, occupied the platform. There were a few ladies present. The London medical student in the class-room is an orderly, quiet, well behaved person; but, on prize days, he apes the bad manners of Oxford on such occasions, and from being individually noisy he grows collectively tumultuous. And such he was the other afternoon. John Simon, Esq., delivered the address, which contained much sound counsel, expressed in the purest English. The address will not appear in print until fall, in the calendar of the college, but I will find room in my next for some of its more striking passages. Mr. Simon is, I should say, not over sixty-five, yet he is quite infirm, and his voice was so feeble that most of the audience must have failed to hear much that he said. I could forgive nearly anything, however, in the author of that "masterly" article on Inflammation in Holmes's Surgery. He bears a very striking resemblance to that excellent gentleman, the late Dr. James C. Johnstone, of Louisville. Most of the prize-winners were Londoners; but Japan, Australia and Mauritius each furnished a representative. Sir Francis Goldsmid, who met his death a few weeks since by being caught between a railway car and the platform, bequeathed to the College two hundred thousand dollars, and to the hospital fifty thousand dollars. Aren't these people princes with their money?

In the year 1123, Rayer,* a monk, and at one time jester for Henry I., founded a church and priory in honor of the most blessed apostle Bartholomew, and subsequently he established a hospital in connection with these, which has come since, under the name of St. Bartholomew's, to be known wherever medical science is cultivated. We are told by the biographer of the minstrel that "he had not the cunning of liberal science, but that he was rich in that which is more eminent than all cunning, purity of conscience." He was also, we learn from the same source, able to "delectably anoint the ears and spread the cushions of the nobility with japes and flatterings," so successfully that he acquired an influence with royalty which, along with "spectacles, meats and plays, and other courtly motleys," finally gave him in West Smithfield the land on which the Church, Priory and Hospital were built, and the Fair of St. Bartholomew held for so many centuries.

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* Augustus Hare, *Walks in London*, quotes, in regard to Rayer—or Rahere, as he seems to prefer—Stow to the effect that "he was a pleasant-witted gentleman, and therefore in his time called the king's minstrel."

When the monasteries were suppressed four centuries later, the vast properties which had been acquired by the labors, jugglery and piety of the monk, Henry VIII. refounded the hospital by royal edict, being "moved thereto with great pity for and towards the relief and succor and help of the poor, aged, sick, low and impotent people . . . lying and going about begging in the common streets of the city of London and the suburbs of the same, and infected with divers great and horrible sicknesses and diseases."

The first work published in the English language on anatomy was prepared by Thomas Vicary, for many years superintendent of St. Bartholomew's and Sergeant-Surgeon to Henry VIII., Mary and Elizabeth. John Woodhall and William Clowes, the leading military surgeons of their time, were connected with the hospital. In 1609 Harvey, the discoverer of the circulation of the blood, was appointed physician to the hospital and continued in office thirty-four years.

It is claimed that the school of St. Bartholomew dates from 1662, when it appears students in some numbers began to walk its wards. At the beginning of the eighteenth century, Drs. Radcliffe and Mead were attached to its staff. Permission being given by the governors of the hospital in 1734 for the surgeons to "read anatomy in the dissecting-room of the hospital," Edward Nourse became the pioneer in this branch of teaching, and for many years gave in the hospital systematic instruction in anatomy. Percival Pott was Nourse's pupil and prosector, and also one of the surgeons of St. Bartholomew's. He, too, gave lectures in surgery, which are classic in this day. Among Pott's pupils was John Hunter. The Pitcairns, William and David, who were physicians to the hospital, added to the importance of the institution by lectures on medicine; and in 1787 Abernethy, then but an assistant surgeon, filled the three chairs of anatomy, physiology and surgery, and made his lectures so attractive that in 1822 it was found necessary to erect a new and more commodious amphitheater. Here Sir Benjamin Brodie and Sir William Lawrence, and to my mind a greater than either, Dr. Latham, sate as Abernethy's pupils. Dr. Latham has left, in one of his unequaled lectures on clinical medicine, a sketch of Abernethy as a lecturer which has often recurred to me, and how often have I wished that more teachers had copied after it. Sir William Lawrence perhaps did, for he was a splendid speaker. Those who never knew Mr. Abernethy, Dr. Latham says, "have no conception of his powers as a lecturer. He so eloquently expounded some of the highest truths, so nicely disentangled the perplexities of many abstruse subjects—made that easy which was before so difficult—he so reasoned, and so acted, and so dramatized it, that we accepted his doctrine in all its fullness. The great Lord Chatham, it is said, had such power of inspiring self-complacency into the minds of other men, that no man was ever a quarter of an hour in his company without believing that Lord Chatham was the first man in the world, and himself the second; and so it was with us poor pupils and Mr. Abernethy. We never left his lecture-room without thinking him the prince of pathologists, and ourselves just one degree below him." There has been a woeful falling off in these fine qualities since Mr. Abernethy's day!

St. Bartholomew's is now one of the largest hospitals, as it is perhaps the richest, in London. It contains between seven hundred and eight hundred beds, and extends its charities annually to nearly one hundred and sixty thousand sick poor. The distribution of the beds would strike us as being anything but in keeping with the teachings of the times. For instance, two hundred and twenty-seven are allotted to medical cases, three hundred and twenty-seven to the surgical cases, while but twenty are given to diseases of women. The surgeons and physicians have each say one hundred beds, and the obstetrician but twenty—and that obstetrician at present is Dr. Matthews Duncan! It is to be hoped that the conjoint scheme of examinations, whereby candidates will be required to possess a knowledge of obstetrics as well as of medicine or surgery, will, if nothing more, lead to such changes in the hospital service as will give to the teachers of obstetrics a number of beds commensurate with the importance of that department of medicine.

If you should be curious to know further of the history of Rayer, the minstrel, and of the great estates which he amassed for the church, and of what was done with and in and on them, turn to Morley's "Memoirs of Bartholomew Fair," where you can read, in delightful English, graphic accounts of events and people which elsewhere are only hinted at, of scenes as sad, as revolting, as grotesque as have ever been enacted.

It was at St. Bartholomew's Hospital where, thirty-two years ago, I delivered to Sir William Lawrence a letter of introduction from one of my revered teachers, Dr. Charles Caldwell. The distinguished surgeon was just entering the door of the hospital, when I approached, and handing him the letter, took off my hat. "Be covered, sir," he at once said. It was the first time I had ever heard that expression used. The second time was when removing my tile one day, in the presence of my late friend Mr. Levi Tyler, that gentleman said, "Be covered, sir; I was a poor man once myself." Mr. Lawrence (he had not then been made a baronet,) passed on into the out-patients' room, and showed me the first case of specific iritis I had seen. You may remember his fine description of that affection in his work on the eye. A few days after I had the pleasure of passing the day at his country-seat. Mr. Lawrence was devoted to pets, among which was a large monkey. At dinner, when dessert was served, and I had just completed peeling an orange in rather a pretty way, I felt it go out of my hand. Turning, I saw the monkey leap on the back of a chair near by, and there, with the orange between his paws, the beast sate grinning at me. The scene must have been amusing, for Mrs. Lawrence laughed heartily, but whether at me or the monkey I never knew. I have not fancied monkeys as table companions from that day to this.

Sir Sidney Waterlow, M. P., the treasurer of St. Bartholomew's Hospital, and to whom Sir James Paget introduced me on the evening of the "Annual View Festival" of that institution, became most pleasantly known to thousands of Americans as the English Commissioner to the Centennial Exhibition. I should like to tell you of the view dinner or festival, and in my next I may, but not here. Sir Sidney Waterlow presided on that occasion. He has endeared himself to all St. Bartholomew's men by his untiring devotion to the interests of that great charity. He also gives much of his time to the praiseworthy work of selecting sites for, and looking to the proper construction of, houses for the working classes, whole blocks of which, provided with modern conveniences, and looking as fresh and neat and clean as can be, bear witness to his enlightened supervision. He is also deputy chairman of the London, Chatham and Dover Railway. A "deputy chairman" here corresponds to a vice-president with us. I am indebted to him for the following card:

"*The Chairman and Directors of the London, Chatham and Dover Railway Company* request the pleasure of Dr. ———'s company on board the steamship *Calais-Douvres*, on the occasion of her experimental trip from Dover to Calais on Thursday."

You, who know my exceeding fondness for the sea and all that is in it, need not be told that I replied, "accepts with pleasure." My company reported for duty at the time appointed, when a special train carrying the chairman, deputy chairman and directors of the road, along with a number of other notables, always agreeable and inevitable newspaper reporter, pulled out from the Victoria station and darted toward Dover. I was favored with a seat in the directors' car, where I had the pleasure of meeting Mr. Forbes, the chairman, a gentleman most favorably known to American railroadmen; Mr. Theodore Martin, author of the Life of the Prince Consort, and who is now happy in calling the once Miss Helen Fawcett Mrs. M.; Mr. Leslie, the contractor of the Calais-Douvres; Captain Morgan, R. N., and many other persons of position in railway and nautical circles. I wished that Standiford, and Newcomb, and Rowland, and DeFunias, and some others of our "Great Southern," had been along.

The distance from London to Dover is seventy-five miles. The run was made in one hour and forty-five minutes. The road traverses a lovely country. We dashed along through cherry orchards, hop fields and wheat fields—villages, towns, hamlets. Among the former was Canterbury, whose grand Cathedral, besides being one of the most ancient of places of Christian worship, is also the center of some of the saddest of historic memories. On we sped till the train rushed out on the white cliffs of Dover, at whose feet lay the silver streak which separates England from France. We found the boat in the harbor, with steam up, flying the English and French colors. The sea was smooth, and the air so transparent that the French coast, twenty-three miles away, was clearly visible. We had hardly time to be presented to the officers when the "Calais-Douvres" slipped her moorings, and sped away toward *La Belle France*.

You may remember that a few years ago a vessel was constructed which, it was claimed, would cross the Channel without making its passengers sea-sick, in which respect she was a partial success; but in the matter of speed and control she was a failure, and, after splitting the Calais pier in two one day, she was withdrawn from the trade. The hull of the Castalia consisted of two half-ships. Captain Dicey, who originated the idea, claiming that a vessel so constructed would travel without the motion inseparable from ordinary ships, was, I believe, bankrupted by his venture. The suggestion of the unfortunate gentleman, however, was not lost on shipbuilders, and as a result we now have a vessel with two distinct hulls, instead of two half-ships. The Calais-Douvres, built by Mr. Leslie, has been purchased by the London, Chatham and Dover Railway Company, and is to be placed in their mail service between Dover and Calais. The twin-ship is, both in size, comfort and convenience, a very great improvement on any of the older vessels in the Channel trade. She is of two thousand tons burden, and her engines of four thousand two hundred horse-power. To my rural eyes, she is constructed on the very principle which you can see any day in the old-fashioned ferryboats plying between Louisville and Jeffersonville. Be that as it may, she made her fourteen knots an hour, almost absolutely without disagreeable motion, and landed us in Calais in one hour and thirty-seven minutes. Quite a crowd of the dwellers in the old French town were on the pier to witness the coming of a vessel in the success of which they are deeply interested. A deputation of officials from the Northern French Railway, the mayor and council of Calais, and other dignitaries, came on board to welcome us. The part of the welcome which seemed most to touch the passengers, consisted in an invitation to an excellent luncheon, served in the railway restaurant. This being disposed of, and a little of the usual speech-making indulged in, we wandered about the quaint old place, some to look at one thing and some another, till the hour arrived to reëmbark. I looked with some interest on the old-fashioned fortifications, which modern arms have rendered practically worthless; on an ancient and somewhat dilapidated cathedral, in the front of which is a marble slab inscribed to Cardinal Armand de Richelieu, because of some present he had made the church; on the fishermen lounging on the quay; on the brown-faced hags who bore on their backs great baskets loaded, some with fish, others with vegetables; on the children, some sunny-faced and some dirty-faced, who played on the grassy slopes of the ramparts; on the drawbridges and portcullis: but over and above, and under and around, and greater than all these, was the smell, which, rising from the canals and ditches and streets of Calais, is more abominable, permeating and enduring, than that which greets the nostrils of the traveler in that city of odors, Cologne itself. Parvin, my right hand may forfeit its cunning, and my memory drop all that is ancient and historic about Calais, but her smells, never!

Toward sundown the Calais Douvres turned head for Dover, at which place she landed us in good time. There we took the cars, and after what to me was a most enjoyable day, we reached London at midnight. It was the first time in my life, whether on the Atlantic or the Pacific ocean, on the Mediterranean sea or the Gulf of Mexico, in steam vessel, sailing ship, yacht or row-boat, I had ever been one hour on salt water without being uncomfortable—most of the time seasick, much of the time wretched. I made the round trip, on the Calais Douvres, from pier-head to pier-head, without a single qualm, without dizziness, without a moment's discomfort of any kind. So, my dear Parvin, when you come to London and then move on Paris, be sure, if you value quiet of stomach and general peace of your inner works, to select the Dover and Calais route, and cross the channel in the steamship Calais-Douvres. How I wish there was such a vessel running between Liverpool and New York, that I might ship on her when the day comes for my return home!

My room is about eight hundred yards from Sir Henry Thompson's private hospital. I walked the distance one morning last week, witnessed Sir Henry do a lithotomy, stepped into an adjoining room, saw him do a lithotrity; left the building, walked to a hotel four hundred yards away, mounted two flights of stairs, waited for Mr. Clover to administer ether, which he had done to the other patients, saw Sir Henry do a second lithotrity, went down into the street with the operator, looked at my watch and found that I had been away from home just fifty-two minutes. A pupil of Liston, Sir Henry Thompson, in cutting for stone, makes but two strokes with his knife—one a plunge down to the staff, the second into the bladder, and then out. The procedure is certainly dazzling, and as in the hands of his great master, is done with consummate skill. It happened to him in this instance, however—as I should think it often would do—to slash the bulb so high up and to such extent that a hemorrhage sufficient to require attention occurred. This, it is true, was quickly controlled by the dilatable tampon, first described by Mr. Buckston Browne, Sir H.'s assistant, last autumn in the London Lancet, though really in use several years before in certain operations on the trachea and in uterine hemorrhages. The amount of blood lost was not considerable, and the patient has gone on uninterruptedly well since.

I have now seen Sir Henry do one lithotomy, one internal urethrotomy, and two lithotrities—the last of two sittings each. I hope to see him do many more. The gentleness and celerity of his manipulations in lithotrity are simply admirable. I do not believe they can be surpassed.

The ovariotomy which I wrote to the "News" I had seen done a few days back by Mr. MacKellar, at St. Thomas's, has not given rise to a bad symptom. The same has been true of the last four operations done at this hospital respectively by Mr. Jones, Mr. Croft and Mr. MacCormac—all being performed under the antiseptic method. *Per contra:*—Mr. Wiltshire, at the West London, has recently done three ovariotomies without antiseptics, and with equally good result. And so the question wages. I am afraid I shall not be able to settle it. What a relief to us all it would be if it could be laid.

When I ride by omnibus here, my favorite seat is by the driver. This individual in London is generally a man of weight. He is usually middle-aged, and appears to have grown out of the top of the 'bus, keeping a sharp lookout for the coming, if not also for the going, passengers. His face is usually red—due, I suppose, to his out-door life. He points out to you all the houses of note, as he picks his way through the crowded thoroughfares. He is chatty, and often original, and seldom otherwise than accommodating. The other morning, on my way to the London Hospital, I mounted to the vacant place by one of these Jehus; and presently seeing two huge draught-horses, I asked what such animals would sell for? "They don't sell at all, sir; they can't be bought. Them wat 'as 'em keeps 'em, sir," my companion replied. "But," I put in, "they must have been sold some time or other?" "Then when they was, sir, they fetched every shilling of a hundred pounds apiece. Such 'osses as them, sir, is werry waluable. Good 'osses is always waluable in Lunnun, sir. They is indispensable like, you know, sir. People in Lunnun couldn't get along without 'osses—they couldn't move without 'osses. The hunderground railways are all wery well, you know, sir, but they can't take the place of 'osses. Never, sir. If they was to run 'em hunder hevery street, 'osses would still be required, would still fetch money, sir; because, you know, the better classes of people prefers 'busses after their own carriages. No, sir, Lunnun wouldn't be Lunnun without 'osses."

Just here he pulled up, and the horses he had been driving were changed for a fresh pair. "What would such horses as those sell for," I asked. "If them 'osses was sound and young as they was when I first saw 'em, they'd fetch sixty pounds apiece. But 'osses don't last long in Lunnun, sir. They git bent in the knees, and go to pieces in a little wile."

A span of handsome black horses in a large carriage passed us. "What would they sell for?" I asked. "Two hundred and fifty to five hundred guineas, according as they was aged and mannered, sir. If they was real well mannered, so as a lady could drive 'em, they'd fetch a'most what you'd choose to ask for 'em. Them is 'osses wat belongs to the nobility, or to people wat 'as a lot of money. And you know, sir, people in Hengland wat 'as money, never stands on the price of a 'oss. If they wants a 'oss they 'as 'im. Why, sir, didn't the Duke of —— give fifteen thousand pounds, no later than the other day, for a colt—a mere colt, sir, wat 'ad never made a canter even. But wat was that to 'im? Money is no hobject to 'im. He 'as four 'undred thousand pounds a year, and 'is hincome is growing every day. Why, he 'ardly remembers by this time that he paid out such a pot of money. No, sir, that hawful lot of money wasn't more than fifteen pence would be to me, you know. Nor so much in fact, for he had his wine that day all the same, you know; and if I was to drop fifteen pence, I should 'ave to go to bed without my beer, you know, sir."

"'Ello! 'ere we are, sir," and the man of 'osses drew rein opposite the gate of the London Hospital, when I left his pleasant company and went in to see some surgery.

You musn't think, because I am faring so sumptuously every day, that I am also clothed in purple and fine linen, for I am not. I am in the same business suit that my Louisville tailor, Walshe, made for me, which I find quite up to anything I see here. Men's garments are cheaper here than with us, and are said to wear better; but as to style and finish they are not superior to such as we get of any good tailor at home. The medical men of London dress no better than those of Louisville—quite as plainly, I am sure. And their winter garments, now "lingering in the lap of spring," are just as threadbare.. Among all the great people—and it has been my good fortune to see at the hospitals most of those whose names are familiar to the profession in America—I haven't seen one who was what they call here "smart" in his dress; not one who seemed to pay, to use another English phrase, any special attention to his anatomy. Life is too short, and the struggle for a place in it too sharp, to leave a medical man much time to think of the style of what withal he shall wear. He is contented in having a sound garment, and wears it without regard to fashion, as long as it is genteel. There are men in London, whose writings are known in every medical household in the United States, whose incomes from their practice are less than five hundred dollars a year. What do you think of that, you young Esculapii, some of whom spend more than the half of this sum annually in what the young collegian enters on his expense account as "sundries;" and who are soured with all mankind, if they don't make double that amount the second year of their work? Whatever else America may be, it is the paradise of "Young Physic."

Another word as to dress:—Before I left home several of my lady friends, knowing my admiration for handsome female attire, entrusted me with commissions in that line. Of course I shall do as I have been told, having been raised thus and and pretty carefully kept since in this respect, in the way I should go; but I venture the remark that if any woman in Kentucky is wearing a dress made by Mrs. Dougherty, it will be difficult, if not impossible, to get one of equal style from any English dress-maker.

I was much interested, the other day, at the Hospital for Diseases of the Skin, where I had the pleasure of meeting Mr. Malcolm Morris, one of the assistant surgeons, whom I should name as one of the coming skin men. Patients, on coming to the hospital for the first time, are given the printed rules of diet and general directions to be observed while under treatment. Among the directions two may, perhaps, be repeated with advantage here:

> "Remove flannel from next the skin affected; or line it with soft linen. Wash with warm water; and as regards the *diseased* skin, not more frequently than cleanliness requires.
>
> "Avoid using *soap of any kind* to the affected parts; substitute to cleanse the *diseased* skin, instead of soap, a paste or gruel made of bran, oatmeal, linseed meal, arrow-root, or starch and warm water, and rinse off with warm water, or warm milk and water; and employ yelk of egg and warm water to cleanse the scalp."

A year or two back Mr. Balmanno Squire suggested, as you will remember, multiple incisions of the skin for port-wine marks—to be done with the ordinary cataract needle; and the treatment was satisfactory in many cases. Mr. Morris has improved on this very greatly, I think, by substituting for the single blade an exceedingly small scarificator with twelve excessively thin blades, set in a handle within the sixtieth part of an inch of each other, whereby the procedure is effected much more expeditiously. The scarificator is provided with a screw on one side, whereby the depth of the incision can be regulated. Besides considerable experience in this mode of treating the port-wine stains, Mr. M. is encouraged to believe that it will prove exceedingly useful in superficial or erythematous lupus, such as is often met with in young girls, since it is quite as efficient as caustics, and destroys much less skin surface. Such cases of the kind as you may have, bid be of good cheer, as I shall bring you one of the scarificators. And while on the matter of "cutaneous diseases of the skin," as an old friend of mine was in the habit of saying, it is pleasant to be able to state that the American Journal of Dermatology is regarded here by skin specialists as being very ably conducted, and in every respect creditable to their co-workers in the States.

A few days since I met Dr. Thompson, of Vevay, Ind., who is here at the Moorefield's Hospital, working at the eye and throat. He has been in Vienna for the past six months, until recently, engaged in the same studies. He thinks of making Louisville his future home. I trust he will do so, for he will be a valuable accession to our professional ranks.

Dr. Coyle, a former pupil and clinical assistant, arrived here from Louisville on Thursday last, and set in at University College Hospital the next morning. It is pleasant to see such earnestness in work as Drs. T. and C. show, and it augurs well for their future success.

Always, my dear Parvin, faithfully yours,

D. W. YANDELL.

Reviews.

Atlas of the Diseases of the Skin. By BALMANNO SQUIRE, M. B., Surgeon to the British Hospital for Diseases of the Skin. London: J. and A. Churchill, New Burlington Street. 1878.

This is part first of a work by a dermatologist almost as well known in this country as in England. The form is exceedingly convenient; the plates, which are four in number, viz., the first of *nævus vascularis*, the second of *nævus vascularis* (with *molluscum*), the third of *psoriasis diffusa*, and the fourth of the same after treatment, are remarkably good; and the text, of eighty-nine pages, all that could be desired.

This little volume is remarkable for its originality; it is not a made-up book, the result of other books, but the rich product of personal experience. For example, we have given the author's treatment of "port-wine" marks, with the description and illustration of the instrument, a scalpel with sixteen parallel blades, devised by him for scarification—an instrument which, our readers will observe, is referred to by Dr. Yandell in his letter in this number of our journal.

So, too, in the treatment of psoriasis, he gives the results of his use of phosphorus internally, and chrysophanic acid locally.

In reference to the former he states that he has found it of unquestionable efficacy, exercising a prompter and more decisive influence over the disease than is commonly evinced by arsenic. He then remarks:—"I have employed it in the favorite form of 'perles' (the little French capsules sold under that name), containing each one-thirtieth of a grain dissolved in oil. Of these perles I give at first one three times a day, gradually raising the dose within the course of a week to as many as four perles three times a day after meals; as a rule, I find this dose is tolerated without gastric pain or inconvenience of any kind, except perhaps an occasional 'rising' of the taste of phosphorus. Twelve perles a day—equal to two-fifths of a grain of phosphorus—are, in my experience, the utmost dose that most patients can tolerate with comfort. Thus administered, phosphorus seems to attain its maximum effect on the eruption within a month's course of treatment. I have seen more than half of an extensive eruption of psoriasis disappear, under the influence of phosphorus alone, within thirty days."

He observes that certain modes of local treatment are far more efficacious than any internal treatment. Among local remedies his decided preference is for an ointment of chrysophanic acid, often curing with it cases of twenty or thirty years' standing in from one to two weeks. "The strength of the ointment may be from five grains up to as much as two drachms of the acid to the ounce of lard. The ointment is far more active if prepared by the aid of heat, inasmuch as hot lard dissolves the acid. The remedy has some disadvantages. It stains the underclothing. It is apt, if incautiously used, to inflame unduly the skin; and I must add that especial pains must be taken to keep it away from the eyes, which otherwise are apt to be affected with smart conjunctivitis."

We are sure that part first of Squire's Atlas will be most acceptable to the profession, and we can hardly imagine that any of the succeeding numbers, for the issue of all of which we shall look with great interest, will be any more valuable.

"**What Anesthetic Shall We Use?**" By J. J. CHISOLM, M. D., Professor of Diseases of the Eye and Ear, University of Maryland, etc. 1877.

A most admirable monograph, advocating the choice of chloroform in preference to all other anesthetics. It presents a careful analysis of anesthetic effects, and gives succinctly the best series of suggestions for administration that the reviewer has noted.

J. G. R.

Transactions of the American Medical Association. William B. Atkinson, M. D., Chairman of the Committee of Publication. Volume XXVIII. 1877. Collins, Printer, Philadelphia. 694 pp.

One of the most noteworthy papers in this volume is that of the president, Dr. Bowditch, who reviews the past and present condition of the Association. He does not hesitate to allude to the shortcomings of the society, which have been the cause of alienation from it of some of the prominent men of the profession. Some of these causes are, want of time for scientific discussion, the time being occupied by "men furiously discussing points of order;" the infliction upon the association of long and prosy papers; the governing of the association by violent partisans at times, and the passage of unwise resolutions insulting, it may be, to large communities. These are some of the causes that have lowered the reputation of the association. Important suggestions as to the future of the association are presented, which are worthy of trial.

The addresses and papers in this volume are all well worth a close perusal, and we imagine none of them have been printed in the Transactions after having been refused by medical journals, as has been said of some papers in former days.

Congenital Occlusion and Dilatation of Lymph Channels. By Samuel C. Busey, M. D., Professor of the Theory and Practice of Medicine, Medical Department of the University of Georgetown, Consulting Physician to St. Ann's Infant Asylum, etc., etc. New York: William Wood and Co. 1878. 8vo., pp. 187.

This volume is composed of papers which the author has contributed to the American Journal of Obstetrics from time to time during the past year. By glancing at the foot-notes in this book, it will be observed that Dr. Busey, with untiring energy and patient research, has carefully culled from a large field of the French, German and English literature.

The case which led the author to investigate and make this extensive report was that of an infant four days old, presenting a congenital hypertrophy of one leg, which "began at and involved the right pudendal labium, and extended throughout the leg." The healthy leg, at the groin, measured seven and a half inches; at the calf, five inches. The unsound leg, at the groin, eleven and a half inches; at the calf, seven inches. There are folds of the soft parts, the flexures dipping deep; also various small prominences on the leg from which fluid can be pressed. There is partial sclerosis, and in regard to this case as well as the rest, the remark is made that the "essential histology and clinical features of the affection classify it as a variety of elephantiasis arabum."

Eighty-eight cases are presented and considered, with fifty-six illustrations. The disease has affected, in almost every case, one of the extremities. The cases are divided into the curable and incurable. For the curable, the treatment is constitutional and local. The constitutional treatment consists of rest, tonics, "appropriate diet and judicious hygiene." The local treatment consists in removing all obstruction to the lymph stream, by pressure, by kneading, and other measures, or in obliteration of the lymphatic vessels by scarification, succeeded by nitrate of silver, or the actual cautery, and obliteration by excision and amputation. Injecting the tumor with tincture of iodine and puncturing, are also advocated.

This book is an addition to a library, whose place can not be filled by any other one book, or probably by many books.

Treatment of Diphtheria. By E. W. CHAPMAN, A. M., M. D., Professor of Obstetrics, Long Island College Hospital. 1877.

A monograph of twelve pages, most emphatically advocating the use of alcohol, quinia and iron, in this fell disease. The author deems alcohol and quinia absolute antidotes to the specific poison causing the disease. In eighty-five cases he reports no death.

J. G. R.

Materia Medica for the Use of Students. By JOHN B. BIDDLE, M. D., Professor of Materia Medica in the Jefferson Medical College, etc. Eighth edition, Revised and Enlarged. Illustrated. Philadelphia: Lindsay and Blakiston. 1878.

Never did author better attain his aim than has Professor Biddle, in the production of this book for students. The eighth and last edition especially is a masterly compendium of all that is essential, most recent and most approved in relation to this special branch of medical science. Nothing has escaped the writer's scan; all the new remedies against disease are duly and judiciously noted, and the old and tried have been duly protected in the position of their evergreen laurels. Amyl nitrite, jaborandi, salicylic acid, eucalyptus, dialysed iron, etc., are appropriately conglomerated with the calomel, ipecac and opium of the ancients. The book is a pleasant octavo of four hundred and thirty pages. Students will certainly appreciate its shapely form, grace of manner, and general *multum in parvo* style. J. G. R.

Prescription Writing—Designed for the Use of Medical Students who have never Studied Latin. By FREDERIC HENRY GERRISH, M. D. Second Edition. Portland, Me.: Loring, Short and Harmon. 1878. 16mo., pp. 51.

Some eminent physicians in America advocate the writing of all prescriptions in English; but we prefer that language (the Latin) for prescription writing, which is understood by all educated physicians and apothecaries in all countries. We regard this book as a practical aid to correct prescription writing, especially valuable to the student and practitioner who, without any previous instruction in Latin, are attempting to write Latin prescriptions. We trust, however, as the writer says, that the time is not far off when no one will be allowed to matriculate in a medical school who has not a good reading knowledge of easy Latin. A. M.

Lacerations of the Cervix Uteri, as a Cause of Uterine Disease. By W. H. Baker, M. D., Instructor in Gynecology, Medical Department Harvard University. Cambridge. 1877.

Practically an appendix to Dr. Emmet's dissertation on this subject. Reports eighteen cases of chronic trouble cured by paring and suturing the surface. Danger—hemorrhage and inflammation; the one controllable by the uterine tourniquet and sutures, the others by cleaners and disinfectants.

Report of a Successful Case of Cesarean Section, after Seven Days' Labor, with Comments. By Ed. W. Jenks, M. D., Professor of Diseases of Women, Detroit Medical College, etc. New York: William Wood and Co. 1877.

The author used and advocates uterine sutures, preferring catgut, as a means of preventing bleeding, which he considers the most frequent cause of fatal results, and deeming them relatively innocuous. J. G. R.

Seventeenth Annual Report of the Cincinnati Hospital, for the Year ending Dec. 31, 1877. H. M. Jones, Superintendent.

During the year 1877, three thousand nine hundred and seven patients were received and treated in this, the largest hospital of the west. The death rate is low, being seven and a half per cent., as reported by the president of the staff, Dr. C. G. Comegys. A new amphitheater has recently been built, which is a very great addition to the facilities for clinical teaching which is so well carried out in this hospital.

Clinic of the Month.

TREATMENT OF PLACENTA PREVIA.—Dr. Charles Bell, Edinburgh Medical Journal, June, 1878, thus presents this subject: There has hitherto been a remarkable degree of empiricism in the treatment of placenta previa, arising apparently from its alarming and dangerous character, which has induced some practitioners to endeavor to check the flooding without delay, even at the sacrifice of the child's life. Many remedies have in consequence been adopted, but the first in importance is the artificial delivery of the child by turning. This operation was first suggested by Ambrose Paré, and afterward strongly advocated by Guillemeau, and it has been considered the most valuable remedy by the generality of the profession since his time, and it is certainly the most advisable when the os uteri is sufficiently dilated, or dilatable, to admit of its being performed, more especially if the woman has stamina enough to undergo the operation, and there is an obvious tendency in the uterus to contract. Should there be no evidence of uterine energy, however, it will be necessary to have recourse to stimulants, and the ergot, given either by the mouth or by subcutaneous injection, in order to rouse the uterine energies if possible before attempting the operation. But some accoucheurs have objected to artificial delivery, from its being liable to be followed by fatal consequences. There is too much reason to believe, however, that these results are more frequently produced by its being injudiciously performed than its inherent character. Nevertheless, the prejudice against it has led to two other operations being suggested as a substitute for it; the one by Sir James Simpson, the other by Dr. Barnes. The operation suggested by Sir James Simpson is the entire separation of the placenta, which he so strenuously advocated that some practitioners, ignorant of the history of the subject, have supposed that he originated it; but he only revived it, as it was performed by Portal two hundred years ago, and the success attending his operations seems to have induced others more recently to practice it; the most celebrated of whom, previous to Sir James Simpson, was Mr. Kinderwood, who reports several cases, some of which were successful, so far as the mother was concerned; others were fatal to both mother and child. It is very questionable if the cases in which the mothers were saved would not have been equally successful had turning been adopted in place of entire separation of the placenta, when in all probability the child might have been saved.

The argument used by Sir James Simpson in support of this operation is in many instances quite untenable, as it goes on the ground that hemorrhage "chiefly, and in most instances entirely proceeds from the other surface, namely, that of the placenta;" or perhaps, more properly speaking, of one large maternal vascular bag, into which the blood of the mother is conveyed by the utero-placental arteries," and by its removal the hemorrhage would cease.

Upon this principle the placenta might be compared to a reservoir supplied by many pipes, and from which, when injured, fluid might escape; but, unless a check were put on the supplying vessels, its mere removal from its locality would not prevent the drain upon the source from which the fluid came; neither will the separation of the placenta check the hemorrhage from the uterus, unless it has energy enough to contract on its vessels, so as to prevent the circulation through them after the placenta is detached. Therefore, if the patient is so exhausted that the uterus can not act, this operation is equally hazardous to the mother as turning, while it is almost certainly fatal to the child.

Dr. Radford, who seems to be favorable to this operation, says:—"I conclude that on a complete separation of the placenta the hemorrhage is immediately and completely suppressed, provided the uterus is in a condition so far to contract as to force down the head with the placenta upon the uterine openings." This is a very erroneous idea, as a little observation will show that the fetal head is ill adapted to act as a plug; and no internal pressure would have the effect of suppressing the hemorrhage, which can only be overcome by the same action on the part of the uterus and its vessels previous to the birth of the child as takes place after delivery.

Dr. Barnes, while he strongly objects to the entire separation of the placenta, advises another operation on the same principle, which has for its object the extension of the partial separation of the placenta, then leaving the case to nature. Now, experience shows that the great cause of anxiety on the part of the accoucheur, and danger to the mother and child, is partial separation of the placenta, in some cases even to a limited extent; yet this author considers that, by this operation, "the case is resolved into a natural labor." He founds this remarkable opinion on the supposition that "there is then an anatomical or physiological limit to the extent of placenta liable to detachment during the expansion of the womb;" and that he has discovered that limit, and can discriminate it during labor, and he designates it the "cervical zone," "the region of dangerous attachment," and by separating the placenta from it hemorrhage ceases. This is, however, a mere hypothesis, as there is no part of the uterus from which the placenta can be separated artificially without danger of hemorrhage, unless uterine contraction immediately takes place. Therefore, this operation is equally, if not more, hazardous than the one recommended by Sir James Simpson.

The only tenable argument which has been used in favor of either of these operations is that they can be performed with less shock to the mother, and requires less manipulation, or manual violence as Barnes calls it, than artificial delivery. But this is a mistaken idea. For, in the first place, the os must be dilated to considerable extent before it is possible to introduce the finger sufficiently for the separation of the placenta; and, unless there is great tendency to detachment on the part of the placenta, a considerable degree of force will be required to effect it. This is verified in Dr. Reid's case, in which he could not force his finger into the anterior part of the uterus to which the placenta adhered; and every one must have experienced the difficulty of separating the placenta in hemorrhage occurring after delivery of the child.

There are other remedies which have been deservedly appreciated in unavoidable hemorrhage, namely, plugging and rupturing the membranes, both of which are most beneficial in the cases suitable for their employment.

Having referred to the most important remedies which have been employed in placenta previa, it now remains to decide in what cases they are most likely to be useful; and this is the most difficult part the accoucheur has to perform, and his success will, in a great measure, depend on his forming a correct diagnosis. If the os uteri is small and rigid, this will be rendered a very difficult matter. Therefore our duty will be, in the first place, to have recourse to plugging, until this state of the os is overcome; and the best kind of plug is the india-rubber bag filled with air, which Dr. Keiller had the merit of introducing into midwifery practice. This is infinitely superior to "Dr. Barnes's bags," as they are called, which are filled with water. The bag filled with air not only affords a light and good support, but it enables the accoucheur to ascertain if the hemorrhage is still going on, and it is easily applied; whereas, if a sponge or handkerchief is employed, it is introduced with difficulty, and the blood is prevented escaping, so that the accoucheur is kept in the dark as to the continuance of the hemorrhage, unless the general condition of the patient enlightens him.

If the labor pains are active, it will be desirable to remove the plug to ascertain what progress has been made in the dilation of the os, and if it is sufficiently dilated, or easily dilatable to admit of the hand, and the child has been ascertained to be alive, and the hemorrhage profuse, there ought to be no delay in delivery by means of turning. But if the child is dead, and the mother much exhausted, it may become a question if the entire separation of the placenta may not be attempted, especially if there is a natural tendency to its being detached by the uterine contractions. If the os uteri is not sufficiently dilated to admit of either of these operations, and if the case is one of central presentation, the plug should be again employed, as it is probable that the hemorrhage is caused by the placenta being put on the stretch by the pressure of the child's head, and the support afforded by the plug may have the effect of checking it until labor is further advanced. But if it is a partial presentation, and the distended membranes are found occupying the entire disk of the os, rupturing them may have the effect of checking the hemorrhage, by allowing the uterus to contract on the vessels from which it was flowing, just in the same manner as takes place when they are ruptured in accidental hemorrhage. In regard to Barnes's operation, I can not imagine any case in which it would be justifiable.

CONTRIBUTIONS TO THE HOT WATER TREATMENT OF UTERINE HEMORRHAGE.—In the *Memorabilien*, Heft 4, 1878, Dr. Alois Valenta reports three very desperate cases of uterine hemorrhage treated by injections of hot water.

The first case was one of protracted abortion in a multipara at the fifth month. The hemorrhage had occurred frequently during the past month, and the patient was anemic and almost lifeless. An injection of hot water (40° Reaum., equivalent to 122° Fahr.), with some carbolic acid in the water, was applied through Fritsch's intra-uterine catheter, and the subjective and objective signs clearly showed contraction of the uterus with expulsion of shreds of remaining placenta. It was necessary to repeat the injections on the two days following, the temperature of the water being 36° Reaumur (113° Fahr). There was no hemorrhage after this, but a peritonitis with exudation developed, from which the patient recovered, and was entirely well within six weeks. . . .

The second case was one of abortion in the beginning ot the third month. The patient was exhausted from repeated loss of blood, and in her case, as in the first, pieces of ice,

ice-water, ferri sesquichlor. and ergotin injections had been used without any good result, also the tampon. The finger was introduced and portions of the membranes taken away, and hot water injected with permanganate of potash in it, temp. 42° C. (107½° Fahr.), with the best results. There was a slight tendency to perimetritis, but the patient was out of bed in two weeks. . . . . .

The third case was one of excessive metrorrhagia, on the tenth day after labor at full term, in a primipara. There was considerable hemorrhage, caused by a portion of detached placenta, which was scraped away, and an injection of water, temp. 37° Reaum. (115¼° Fahr.) used. There was no more hemorrhage, and the patient was well in a short time.

Critical Remarks.—The first point to be observed is that the patient, as soon as the hot water injections were commenced, could clearly feel the contractions of the uterus, as one could himself observe the contractions. It appears, therefore, to be proven from the facts that the *hot water injections induce without doubt quick and energetic contraction of the uterus.*

2. An important point, very favorable to the hot water injections in preference to the cold, is the consideration that by the latter, so far as the body-heat is concerned, patients very much reduced will always be deprived of more warmth, while *by the hot water injection warmth in an inverse proportion will be produced*, which is essential in very anemic patients.

3. It is also especially to be noted that the general feeling of the patient from injections of hot water is an agreeable one, while the cold water treatment is decidedly unpleasant.

4. The resultant reaction in the cases observed, after the hot water injections, is not only not more violent than the cold water injections, but, in the judgment of the writer, milder.

5. The temperature of the water should be from 40° to 42° R. (122° to 126½° Fahr.), with some disinfectant, as carbolic acid or permanganate of potash. Dr. Atthill, of Dublin, says that in these cases the water must not be less than 110°, and may safely be 115° Fahr.

6. This treatment of uterine hemorrhage should no longer be resorted to as a last refuge, but should be adopted as soon as possible in cases of this kind.

SANITARY WORK OF THE BROOKLYN HEALTH BOARD IN THE CARE OF CONTAGIOUS DISEASES.—Dr. J. H. Raymond, in the Proceedings of the Medical Society of the County of Kings, June, 1878, gives the following important information:

The sanitary work of a health board is in great measure dependent upon the sympathy and coöperation of the medical profession. It is not to be expected that this sympathy will be excited, unless physicians are aware of the nature of the work they are expected to participate in; and it is to give this information that this paper is presented.

During the year 1877 there were five thousand five hundred and twenty-nine cases of contagious diseases reported to the health office; of these one thousand five hundred and ninety-eight were fatal. For several years scarlatina and diphtheria have been the prevailing zymotic diseases; small-pox having caused no deaths since June, 1877, and no cases having been reported since July of the same year. In October, 1877, a plan was inaugurated, with the object in view of diminishing these terrible scourges. This, in brief, included the following:

First. To notify every physician, undertaker and minister in the city, that in all deaths from these diseases the funerals must be strictly private. This action was made necessary, because inspections showed that public funerals were the rule; that scores of people, many of them children, assembled to pay their last respect to a deceased friend, sitting for one or two hours in the same room with the body, which was never disinfected and the coffin always open. It was a frequent practice for the friends to kiss the corpse, even when the case was of the most malignant type. It was necessary, in one instance, to cause the arrest of a father who had permitted fifteen persons to be thus exposed; he was fined by the court. Six months ago the daily papers contained notices of deaths from contagious diseases, stating that friends were invited to be present at the funeral. To-day such notices are seldom published, and when they are, steps are immediately taken to prevent such assembling.

Second. Notices are sent to parents, as soon as the case is reported by the physician, directing them to keep the child, and all other children in the family, from school. At the same time, all the principals of the public and other large schools in the city are notified of the name and address of every case of contagious disease reported, and instructed to permit no child from the infected house to attend school. It would be absolutely impossible to do this work without an additional clerk, were it not for the electric pen. During the Christmas holidays there were no schools in session, so that no reports of contagious diseases were sent to the principals. On the second of January a list of two hundred names and addresses of those reported during that period sick with scarlatina and diphtheria were sent to each school. Fifty such lists, making in all ten thousand names and addresses, were written, directed and mailed inside of three hours. To have done the same thing in the ordinary way would have taken one clerk at least fifty hours.

The following statistics of the deaths for the first quarter of 1877 and 1878 are of interest, as showing that this attempt to diminish the number of these diseases has not been a fruitless one:

	1877	1878
Small-pox	4	0
Scarlet fever	183	147
Diphtheria	228	131
Typhoid fever	20	5
Total zymotic diseases	715	536

Deaths during April	1877	1878
Diphtheria	68	24
Scarlet fever	70	37

If physicians made no reports, this work could not be performed. To be effective, action must be prompt. The neglect to report each case promptly prevents a prompt report to the schools, and oftentimes keeps in a crowded room a scholar from the very apartment where a malignant case of scarlet fever exists. The principals of the schools are in hearty sympathy with this work, and often letters are received calling attention to the fact that some one has scarlet fever or diphtheria whose name is not on our list; and many cases of which we would be ignorant come to our knowledge in this way. Want of care in filling out a report often creates great mischief. These reports are permanent records, and brought into court and used as evidence, oftentimes against the owner of the house in which the contagious disease is said to have occurred. Physicians not infrequently locate the case at the wrong number, and unless great care is exercised, the mistake might not be discovered. Promptness in making the report, and care in filling it out, will greatly aid the sanitary work of the health department.

CHRYSOPHANIC ACID OINTMENT IN PSORIASIS.—Prof. Neumann, the eminent dermatologist of Vienna, (*Wiener Mediz. Presse*, No. 14-16, 1878,) having made extensive trials with this ointment at the General Hospital, Vienna, in the treatment of psoriasis—as first recommended by Mr. Balmanno Squire at the latter end of 1876—is very favorably impressed with the results. After giving due credit to Mr. Squire, and to the other English observers who followed him in this research, the Professor winds up an able paper with the following summary:

1. That chrysophanic acid, derived from goa-powder, is an excellent remedy for herpes tonsurans, pityriasis versicolor, and psoriasis vulgaris.

2. Psoriasis in its earlier stages begins to disappear after a few applications of the drug, and in a far more unequivocal manner than under any other remedy that has ever yet been used against psoriasis.

3. Even inveterate forms of the disease can be abolished by means of chrysophanic acid, and it is quite the exception to find them oppose any protracted resistance to it.

4. Chrysophanic acid is a perfectly painless application to the diseased skin. The morbid phenomena occasioned by it on the healthy skin result apparently from the admixture of resinous matter with the acid.

5. As a result of this mode of treatment, psoriasis belongs no more to those skin diseases which in so high a degree are a source of misery to the patient, and it has now become an easy matter to cure relapses. Every patient with psoriasis that I have as yet treated by this means gives the palm, without hesitation, to this method of treatment in preference to others. In any case, this, at the least, is emphatically true—namely, that the therapeutics of skin diseases have, for the last ten years, been enriched by but few remedies which have been crowned by so eminent a success as the one in question.

6. There are other skin diseases also which are curable by chrysophanic acid, but upon these I will not report until I have accumulated more material.

7. Lastly, I desire to express a hope that this method, which I am the first to promulgate in this, my country, may be examined by other observers, and I do not doubt but that it will soon permanently assume its due rank amongst the treasures of therapeutics. (The Doctor, June, 1878.)

ETHER-SPRAY FOR THE OBSTINATE VOMITING OF PREGNANCY.—M. Dujardin-Beaumetz communicated to the *Société de Thérapeutique* a case of obstinate vomiting in a pregnant woman, which had resisted all hitherto proposed means,—valerianate of cafeine, chloral, opium plaster, creasote, pepsine, tincture of iodine, etc.,—and which yielded to pulverized ether, as suggested by Dr. Lubelski. Immediately after a meal, ether was applied by Richardson's instrument for five minutes to the middle of the dorsal region and over the stomach. Vidal recommended chloral by rectal injection, stating that, given by the mouth, he had not seen any beneficial results. (*Annales de Gynécologie*, May, 1878.)

Notes and Queries.

At Buffalo.—The Buffalo meeting of the American Medical Association deserves rank among the best of the annual assemblings of this body. The large number of physicians in attendance, the kind and generous hospitalities of the doctors and other citizens of Buffalo, the excellent arrangements of Dr. Rochester and his colleagues, the address of the President, Dr. Richardson, an address peculiarly rich in practical suggestions, the addresses of the Chairmen of Sections, the great variety and decided excellence of most of the papers presented the Sections, the freedom from all strife and any serious discord—all these things combined to make the meeting interesting, useful and pleasant.

So far as work in the Sections was concerned—and this is the most important work of the Association, that which is most interesting and valuable to the profession—especial praise must be given those Chairmen who secured papers, and the Committee of Arrangements who had printed a programme of all the work, not only of the Association but of each of the Sections. This printed order of exercises—similar to that which was had at the Centennial Medical Congress, and which we in vain begged the gentleman having the matter in charge for the Chicago meeting to imitate—greatly increased the interest, and facilitated the practical working of the machinery, and economized time. We doubt if the step so wisely and usefully taken by Dr. Rochester and his colleagues, in providing this printed programme, will ever be retraced by other committees of arrangement.

The various addresses alluded to and the papers read before the Sections, will make a volume of transactions equalling, if not surpassing, any of its predecessors.

Of the receptions given by the Buffalo Club, the Fine Arts Association, and the Society of Natural Sciences, by Dr. and Mrs. James P. White, and by Mr. Bronson Rumsey, too high praise can not be given. The general testimony of those who were at that given by Mr. Rumsey was that never, in this country nor elsewhere, had they witnessed such a beautiful display as was presented by the house and grounds of this rich and generous host. A spacious house with many rare paintings and the finest bronzes, ample grounds with great forest trees, and shrubbery threaded by winding paths, mounds and grottoes, a lake and stream and cascades, the lake rippling with the boats urged over its surface by gay rowers, and ringing with all happy utterances and glad laughter,—the whole scene of wood, of sward and of water, of winding paths and concealing shrubbery, illumined by hundreds of Chinese lanterns and by uprising columns of red fire, while choice music from a band by the house came floating wave-like to the most distant retreats;—such was a picture that seemed as if one had been transported to a real fairy-land, or were dreaming rather than awake hearing and seeing with true ear and eye. Nor must we forget that not only the six hundred visiting doctors, several so fortunate as to have with them their wives and daughters, but many of the best citizens of Buffalo, both medical and lay, male and female, were present.

Ah! if one, in the midst of such scenes of splendor and enchantment, could adopt the philosophy of Bishop Berkeley. The good Bishop declared—let no cruel jester, remembering that in philosophy he was an idealist, reject our quotation with the remark that *what he believed made no matter*—"I have discovered that I am the natural proprietor of all the diamond necklaces, the crosses, stars, brocades, and embroidered clothes, which I see at a play or birth-night, as giving more natural delight to the spectator than to those that wear them. And I look upon the beaus and ladies as so many paroquets in an aviary, or tulips in a garden, designed purely for my diversion. A gallery of pictures, a cabinet, or library, that I have free access to, I think my own. In a word, all that I desire is the use of things, let who will have the keeping of them."

However, whether we can believe with Berkeley or not, that brilliant pageant, that gorgeous dream-like vision of grace and splendor, of the combined beauties of art and nature, the "Rumsey reception," has passed away, probably never to be repeated in the lives of one in ten who witnessed it, but to remain in the memory of all a joy forever.

On Friday afternoon, the Buffalo profession gave an excursion to Niagara Falls. Very many of the citizens of Buffalo, gentlemen and ladies, were also invited. Those of us who saw "Niagara" for the first time, and then for only a few hours, are not qualified to speak of it, to make known the impressions it produces, and the thoughts it suggests. One may well be silent, awe-struck in the presence of a power so grand and tremendous—the swift rush and thunderous plunge of the mighty waters, so that the very earth trembles with the shock, and, lo! there is no intermission in the rush, and no pause in the plunge; beneath the writhing, struggling sea of foam; above rainbow crowns, trembling and evanescent; and far up a column of spray-cloud, that can be seen twenty miles away. In "Gwendolen," George Eliot, in a picture of the ocean, refers to it with words almost equally applicable to Niagara, as everywhere the same grand, monotonous, incomprehensible waste, always that mighty element of combined harmless matter, crowded into an overwhelming whole, and then remarks, "It requires years of observation, filled in with days and weeks of study and experience, before even this stupendous grandeur can awaken in tiny soul of mortal a comprehension of our own nothingness."

A six o'clock collation at the International Hotel was to be immediately followed by a return to Buffalo; and the collation over, cars and people were ready, but no locomotive was there,—it was miles away, and the waiting train was what might be called after Hood a *non sequitur.* Somebody had blundered, but nobody grumbled. After awhile the wished for locomotive came, and a little after eleven P. M. the happy, grateful excursionists were brought safely to Buffalo. Not the least enjoyable part of the trip was that spent on the cars before starting and during the return. In one car especially there was a flood of fun, for in it were half a dozen or so Buffalo ladies and gentlemen who formed an extemporaneous club of vocalists,* whose succession of humorous songs, so admirably given, would have made the longest night short.

All the members of the American Medical Association left Buffalo, grateful to the profession, to its people, and to the press,† many doubtless hoping that they might live to attend another annual convention at this most delightful and hospitable city.

OFFICERS OF THE AMERICAN MEDICAL ASSOCIATION.—The following are the officers for 1879:

President—Theophilus Parvin, M. D., of Indiana.

Vice Presidents—A. J. Fuller, M. D., Maine; W. F. Westmoreland, M. D., Georgia; John Morris, M. D., Maryland; John H. Murphy, M. D., Minnesota.

Treasurer—Richard Dunglinson, M. D., Pennsylvania.

Librarian—William Lee, M. D., District of Columbia.

Committee on Library—Johnson Eliot, M. D., District of Columbia.

Next Place of Meeting—Atlanta, Ga.

Time of Meeting—First Tuesday in May, 1879.

Assistant Secretary—Scott Todd, M. D., Atlanta, Ga.

Committee of Arrangements—J. P. Logan, chairman; H. V. M. Miller, G. G. Crawford, H. L. Wilson, J. F. Alexander, J. M. Johnson, Chas. Pinckney, V. H. Talliaferro, J. T. Johnson, Atlanta, Ga.

Committee on Prize Essays—Robert Battey, Rome, Ga.; J. G. Westmoreland, Atlanta, Ga.; William A. Love, Atlanta,

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* One of these vocalists, a lady well known for her devotion to the sick, a Florence Nightingale among sufferers, made a happy hit when "Saw My Leg Off" was being sung, by announcing, in a clear voice, surmounting that of her associate choristers, "Surgical Section, Number One!"

† The reports given, especially by the Courier and the Commercial Advertiser, of the proceedings of the Association were full and remarkably accurate.

Ga.; Robert Kidley, Atlanta, Ga.; Henry F. Campbell, Augusta, Ga.; J. H. Van Deman, Chattanooga, Tenn.

Committee on Publication—Dr. William B. Atkinson, chairman; T. M. Drysdale, M. D., A. Fricke, M. D., S. D. Gross, M. D., C. Wister, M. D., R. J. Dunglinson, M. D., Pennsylvania; and William Lee, M. D., District of Columbia.

The committee also report the following nominations for Chairmen and Secretaries of Sections for 1879:

I. *Practice of Medicine, Materia Medica and Physiology*—Dr. Thomas F. Rochester, Buffalo, N. Y., chairman; W. G. Glasgow, St. Louis, Mo., secretary.

II. *Obstetrics and Diseases of Women and Children*—E. S. Lewis, M. D., New Orleans, chairman; James R. Chadwick, M. D., Boston, Mass., secretary.

III. *Surgery and Anatomy*—Moses Gunn, M. D., chairman; Dr. J. R. Weist, Indiana, secretary.

IV. *Medical Jurisprudence, Chemistry and Psychology*—Wm. M. Compton, M. D., Mississippi, chairman; L. M. Lastman, M. D., Maryland, secretary.

V. *State Medicine and Public Hygiene*—John S. Billings, M. D., District of Columbia, chairman; Dr. J. T. Reeve, Wisconsin, secretary.

ASSOCIATION OF AMERICAN MEDICAL EDITORS.—The annual meeting of this Association was held at the Tifft House, Buffalo, on Monday evening, June 3d. The president, Dr. Gray, editor of the American Journal of Insanity, delivered the annual address—an address of great value, and to which we shall refer in our next issue. Dr. William Brodie, of Detroit, was elected President for the ensuing year.

MEDICAL COLLEGE ASSOCIATION.—If any doubt has been felt in regard to the usefulness of this organization, it would be removed by reading the minutes of the recent meeting at Buffalo. These contain "the promise and potency" of important advances in medical education, and we trust every reputable medical school in the country will soon become a member of the Association.

Dr. Parvin's Speech in Accepting the Presidency of the American Medical Association.

Gentlemen of the American Medical Association:

I acknowledge both pride and pleasure in accepting the highest honor of the American profession. Would that it were in my power to render suitable thanksgiving to you for conferring this honor — thanksgiving in words of grace and humility, and yet in all earnestness and with the fullness of truth. If, as one of the great English poets has taught, there are "thoughts that lie too deep for tears," so there are sometimes emotions and feelings that can not find adequate expression in words — tongue can not always tell what the heart feels. Nevertheless, though imperfectly, I give you thanks. I thank you for myself and for the state of which I am a citizen. I thank you in behalf of the Northwest, with its sisterhood of states, whose representative I was so kindly and generously made; a territory imperial in extent, in resources, in powers, and possibilities.

But this Association is not limited by state lines or inclosed in territorial boundaries. From ocean to ocean, from the lakes to the gulf, it casts its golden girdle around the whole profession. And so unto you now, "men, my brothers," of the North and of the South, of the East and of the West, for fraternal deed fraternal thanks are given.

One of the old Greek philosophers, Anaxagoras, was reproached with want of patriotism, but he denied the charge, and pointing to the stars, exclaimed, "There is my country!" In like manner the American physician, however humble his position, however remote from the great medical centers—he may never have trodden the classic streets of Boston, or rested beneath the shadow of Harvard, he may not have dwelt in those, to this country, ancient founts of medical instruction, Philadelphia or New York — can point with pride and joy to the American Medical Association. Here are country and kindred. Here is a light to guide, strength to help, and hope to encourage the humblest as well as the highest. It is of the profession and for the profession; not narrow but catholic;

not provincial but general; not of a city or of a state, but of the whole country.

Gentlemen in the distance of their homes and in the quiet of their studies may speculate on the functions of the Association, and may sometimes even write severe criticisms of its action, and suggest Utopian schemes for its improvement. But let them come to it, learn its history and traditions, understand its polity, not only witness but participate its action, and thus help its higher development and nobler progress, instead of finding fault afar off, where fault-finding must be powerless for good, and may be potent for evil.

Meantime and ever those of us who see in it the organized power of the profession will with united energies labor for its advancement, bating no jot of heart or hope follow its fortunes, and transmit it to our successors as the richest of medical inheritances.

A soldier of the first Napoleon, I believe, when wounded in the chest said to the surgeon probing his wound, "Go deeper, go deeper and you will find the emperor." Deep in all our hearts is the American Medical Association, and there it will remain until those hearts shall beat no more.

TO SUBSCRIBERS.—Do not let the ardent summer sun consume your interest in the AMERICAN PRACTITIONER. From many subscriptions are due, and the publishers are anxiously waiting remittances. The editors are always ready and rejoice to receive contributions, though all of these they do not publish, for they must select such articles as they believe will be most acceptable by, and useful to subscribers. As this is the first number of the second volume for 1878, a favorable time is presented for new subscribers to commence: we should like to add to our list not fewer than five hundred names before 1879. Send in names, even if remittances can not be made at once.

BEALE ON MATERIALISM.—The Princeton Review, for July, contains an able paper by Dr. Lionel S. Beale on *the materialist revival.*

THE METRIC SYSTEM IN A NUT-SHELL.

"Universality, uniformity, precision, significance, brevity, and completeness. A system of weights and measures born of philosophy rather than of chance." (Charles Sumner.)

BY EDWARD WIGGLESWORTH, M. D.

"WASHINGTON, May 3.—Surgeon-General Woodworth, of the United States Marine Hospital Service, has issued a circular, with the approval of Secretary Sherman, requiring medical officers of the Marine Hospital Service, to make use hereafter, for all official, medical and pharmaceutical purposes, of the metric system of weights and measures, which had already, under the act of July 28, 1866, been adopted by this service for the purveying of medical supplies." (Boston Daily Advertiser, May 4, 1878.)

The metric system is already legalized in both America and England. The only question now is, which of the two, the most progressive or the most conservative nation on earth, shall be the first to definitely and finally adopt it as an exclusive system? [England was four hundred years behind the continent in adopting our present arithmetic.] Russia has already taken the preliminary steps towards its final adoption. The rest of the civilized world long since made the system obligatory, in whole or in part, except that, in Sweden alone, its obligatory use is to date from a period in the future, 1889.

Now, what is this metric system? Metric is from the Greek word μέτρον, (metron) a measure, spelled with Epsilon, e short, and therefore pronounced mĕt-ric. The meter (measure) is, practically, a fixed quantity, namely, the ten millionth part of the earth's quadrant from the Equator to the North Pole. With the meter everything can be measured, for it is itself the unit of length; a cube, the edge of which is the tenth of a meter, is the unit of capacity (liter), and the weight of a cube of rain water, at its extreme contraction, the edge of which cube is a hundredth of a meter, is the unit of weight (gram).

It is the gram alone which concerns physicians, for, in the metric system, everything is best prescribed and dispensed by weight alone; numbers upon a prescription paper being regarded by the pharmacist as representing grams, unless the contrary is expressly stated; the fractions are always decimal. The table is easily learned. It consists of six words, as prefixes, whether we deal with grams, liters, or meters. These are: deci for tenth, centi for hundredth, milli for thousandth; deka for ten, hekto for hundred, kilo for thousand. Having these few words, the terms of troy, avoirdupois, and apothecaries' weight, and of liquid measure, may be relegated to the limbo of pounds sterling, shillings, four-pence-ha'pennies, and farthings. As we say dime, cent, mill, so we say decigram, centigram, milligram. These prefixes are Latin, and diminish the value. Deka, hekto, and kilo are Greek, and increase the value. The mnemonic is G I L D, *i. e.*, Greek increases, Latin decreases. Deka occurs in the English word decade; kekto in hecatomb; kilo in chiliad.

Practically, moreover, for physicians, the whole system is reduced to grams and centigrams, just as in money to dollars and cents. On the right side of the prescription paper draw a perpendicular line from top to bottom. This decimal line takes the place of all the decimal points, and obviates the possibility of mistakes. This is the way dollars and cents are separated on business papers. Additional security is gained by writing the decimal fraction (centigrams) of half-size and raised above the line (of grams), since it represents a numerator of which the denominator (one hundred) is omitted. To make assurance doubly sure, "grams" may be written over the integer-column of figures, and if wished the word "decimals" over the decimal column.

Now, what is a gram? or rather the values, metrically expressed, of our present awkward weights?

		Prussian.	Practical.	Precise.
Grain I	=	0.06	0.06	0.065
℈ I	=	1.25	1.25	1.29
ʒ I	=	3.75	4.0	3.89
℥ I	=	30.0	32.0	31.1

The "practical" table alone concerns us. The "Prussian" (by order of the Prussian ministry, Aug. 29, 1867,) is given merely to show that our table is even nearer the actual truth than one which has been proved by actual experience to answer every purpose. The values of the grain and scruple are a little too small; as they are used for powerful drugs, this is an error in the right direction. The values of the drachm and ounce are a trifle too large; but the proportions, and therefore the ratio of drug to vehicle, are preserved.

A prescription written metrically is always proportionate, and whether the pharmacist uses pennyweights, pounds or ton, gills, pecks or chaldrons, pints, gallons or hogsheads, the ratios are preserved, and a teaspoon dose contains the same amount of medicine. As regards administration, a teaspoon represents five grams, a tablespoon twenty grams; for a teaspoon holds one and one-third fluid drachms, a tablespoon a trifle more than four times as much.

In the metric system everything is weighed, thus obviating the difficulties of evaporation, refraction and adhesion, and obtaining more conveniently more exact results. In our old "systemless system" some fluids were measured. How shall we obtain with weights the desired bulks of fluids with varying weights? Must we learn the specific gravities of all fluids? Not at all.

1. Fixed oils, honey, liquid acids and chloroform, must at present be prescribed in our old weights, not measures, according to the pharmacopœia. Here change old weights to metric ones.

2. Not enough chloroform or ether is included in any one prescription to admit of harm arising from the amount contained in a single dose, even were their weights regarded as the same with that of water. Moreover, it is not difficult to remember that ether weighs seven-tenths as much as water, chloroform twice as much as ether,

3. There remain infusions and tinctures, glycerines and syrups. These four are used in bulk as doses, or as solvents or vehicles. The former two may be regarded as identical in weight with water; the latter two as one-third heavier, and when prescribing these we need merely write, by weight, for four-thirds as much as we should write for were we prescribing water, and we obtain an equal bulk. The teaspoon or tablespoon dose will then contain the desired amount of the drugs employed. Or, simplest of all, we can make any mixture up to any desired bulk by merely directing the druggist to use enough of the vehicle to bring the whole mixture up to the requisite weight for that bulk.

The Metric Bureau, No. 32 Hawley street, Boston, will furnish metric prescription-blanks to order, to druggists or physicians at four-fifths printer's rates, or any blank can be made sufficiently metric by a perpendicular line at the right, headed grams.

THE AMERICAN PRACTITIONER.

AUGUST, 1878.

Certainly it is excellent discipline for an author to feel that he must say all that he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than anything else.—RUSKIN.

Original Communications.

ILLUSTRATIONS OF IGNORANT OBSTETRICS.

BY J. R. WEIST, M. D.

"The ignorance of irregular doctors" is a theme so often dwelt upon by orators in medical societies, and by writers in medical journals, that many members of the profession seem inclined to believe that it is only among the practitioners of irregular medicine that serious mistakes in diagnosis and treatment are made.

The so-called regular profession claims all the scientific knowledge to be found among physicians, and its members often wonder why so many intelligent and cultivated people, when they have need of the services of a physician, employ one belonging to another guild. If the claims made by the regular profession were always just, there would be cause for surprise; that sometimes at least they are not so, is well known. When we ask the public to draw a line of distinction between scientific physicians and empirics — on the one side of which shall be placed regular physicians, and on the other *only* homœopaths, eclectics, etc.—we ask an impossibility; for, humiliating as it is to acknowledge it, it is certainly true that within the ranks of regular graduates in medicine may be found examples of ignorance so dense and profound as to be almost beyond belief.

The two cases presented below were managed in chief by physicians who are graduates of regular and respectable medical schools—by physicians who have had years of experience, and who are in fair professional standing in the localities where they practice. They occurred in intelligent communities, to whom the leading facts in relation to the cases are known; in communities where regular and irregular medicine are known only through local representatives. An examination of them will, I think, justify every statement made above, and show how impossible it must sometimes be for the public to make any marked distinction between the ignorance of the different schools of medicine. Whenever the "regular doctor" shall be, as his title indicates, "learned," and when there shall be in every case this real difference between him and his empiric rival, then will the public note the difference, and so act that irregular medicine will be banished forever.

Case I. Was summoned —— —— to see Mrs. C., who was said to be in labor with her first child. I was informed that the patient, who lived some twelve miles out of town, had been in labor for about twenty-four hours; that Drs. Y. and Z., who were in attendance, said she could not be delivered without instruments. On my arrival I met Dr. Y., a regular physician of perhaps a dozen years' experience, who had been with the patient about twenty-four hours; Dr. Z., an older eclectic practitioner, had just gone home, after remaining with the patient twelve hours.

Dr. Y. said that the patient—Mrs. C., a primipara, twenty-two years of age, who had always enjoyed good health and gone through gestation without trouble—had fallen from a chair about a week before, she being then near the end of her term. After this accident, she had not discovered motion of the child. The doctor also said that when he was called to the case, twenty-four hours before, he found the patient in labor, which continued for twelve hours to make slow progress;

at the end of this period the head was born. After this the pains gradually ceased, although ergot had been given and other means used to excite them; that there had now been no expulsive pain for five or six hours, and that I would find the patient much exhausted; that Dr. Z. had been called soon after the head was delivered, that he remained until nearly the present time; also that both had made efforts to deliver the woman, but being without instruments failure had followed.

On seeing the patient, a very brief examination only was necessary to discover that she was *in articulo mortis*, she being unconscious, pulseless, cold, and breathing only at long intervals. She was lying across the bed, the buttocks on the edge, and the feet supported on two chairs. The head of the child was entirely delivered; it had evidently (determined by position of shoulders) presented in the first position. The scalp was partially decomposed, and the cranial bones separated. Dr. Y. said the head had remained in the position I found it for about twelve hours!

The fingers of one hand were placed in the axilla of the child, and the delivery completed within five minutes. The placenta was easily removed. There was only partial contraction of the uterus, yet there was no hemorrhage. The skin over the body of the child was discolored and softened; it is, therefore, probable that death occurred at the time of the fall of the mother. Within ten minutes after the completion of delivery the mother was dead!

When I questioned, in perhaps not the gentlest terms, why this woman had been allowed to go on unaided until dying of exhaustion, Dr. Y. replied that neither he nor Dr. Z. had any instruments, and they "thought the child could not be delivered without." This patient seemed to die of exhaustion, while her medical attendants looked on without making any intelligent effort for relief. Possibly there was some other cause of death; but even in this case, there can be offered no reasonable excuse for the bad management of the patient. For some of us, a death like this resting on our consciences would not be conducive to happiness.

Case II. Was called April 12, 1878, to E——, Ohio, to see Mrs. T., aged twenty-six years, who was in labor with her second child. Mrs. T. was a woman of unusually good physical development; she had always been strong and healthy; her previous labor, two years before, was natural and not of long duration, and during the present pregnancy she had enjoyed excellent health. Labor came on at 6 A. M. on the day of my visit. At 7 A. M. Dr. K. was called. The doctor found the pains frequent and strong. He discovered, he states, a "face presentation," and "proceeded at once to perform podalic version." Upon bringing the feet into the vagina, he concluded that he had better have assistance, and advised that I be sent for. This not being considered necessary by the friends, Drs. B. and C. of the same town were called in. Although the pains continued very active, the three doctors did not institute any very active measures, delivering no more than the pelvis of the child.

At 3 P. M. Dr. X., an old practitioner of a neighboring town, saw the case. After an examination of the patient, he said "there would not be any trouble in delivering the baby," and that he would "soon show these young doctors how to do it." He soon succeeded in delivering the shoulder, but the head gave him trouble. Depending on "main strength" for success, he continued his efforts at extraction until the body of the child was torn from the head, the separation occurring at the neck. Although there was in the house a fair case of obstetrical instruments, the doctor declined to use them; but had made at a neighboring blacksmith shop two instruments (these I did not see), with which he tried for an hour or more to grapple and remove the head; failing to do this, he abandoned the case and went home, much chagrined at his want of success. Much blood was lost during the doctor's efforts to deliver the head.

I saw the patient at 6 P. M.; meeting at the bedside the three medical men first called to the case, from whom I received the history of the patient just related. I found Mrs. T. pale, cold and pulseless; she was still conscious, and I was just able to hear her whisper, "Doctor, I am glad you have come; they have been murdering me all day." She became unconscious immediately after this, and breathing feebly a few times, died within five minutes!

At the urgent request of the husband, I made a hasty examination before she ceased breathing. The bed was saturated with blood, and the vagina lacerated. The head, which seemed to present nothing abnormal, was not engaged in the pelvis, but was, together with the detached placenta, entirely within the uncontracted uterus, high up in the abdomen. As the unfortunate woman was dead by the time this examination was finished, I made no effort to deliver the head. On examining the trunk of the child I found it well developed, and with the head would have weighed probably nine pounds.

As I looked upon this dead woman, so young and perfect in her physical development—her headless baby—her weeping husband, and the crowd of women that filled the room, gaping with wonder, and thought how a little knowledge of the mechanism of labor might have prevented the sad scene, I grew sick; I felt that a murder had been committed, and that I, because I was also a doctor, was to some extent responsible for it. As I recall the outlines of this picture, the sadness and the humiliation then felt return, and I feel that the charges made in my preliminary statement are well sustained.

RICHMOND, IND.

TWO CASES OF CANCER OF THE STOMACH.

BY JOHN A. OCTERLONY, A. M., M. D.

Visiting Physician to the Louisville City Hospital, Visiting Physician to the Kentucky Infirmary for Women and Children, etc, etc.

CASE I. Mrs. H. was brought to me on the 23d day of May, 1877, by my friend, Dr. G. W. Baylor, of Milltown, Ind. She was born in Germany, is forty-nine years old, married, had one child, then twenty-one years of age. She had one miscarriage when about twenty-six years old. Up to about a year and a half before her visit to me, she was remarkably healthy and strong, and had always led a very industrious life. About that time she had a severe attack of typhoid fever, but made a good recovery. Six months before Dr. Baylor brought her to me, she began to suffer from severe pains in her stomach and vomited after meals, and soon began to lose flesh. Menses ceased after the attack of typhoid fever.

Present condition.—May 23, 1877; her complexion is dark and sallow, and she has a decidedly cachectic appearance, and is very feeble; pulse, 90; temp. 100. There is complete anorexia, with great loathing of flesh-meats, which she formerly was very fond of. Complains of a bad taste in the mouth, and has eructations of very unpleasant odor. The bowels are habitually constipated. She describes her sufferings as very severe, and says she has terrible paroxysms of pain in the stomach after eating, but vomits now quite seldom, and has not vomited much during the last two months.

Physical examination.—Abdomen is enlarged from ascites, which is well marked without being excessive; feet and ankles are edematous. Extending from the cardia to a little below the umbilicus is a hard movable tumor, somewhat irregular in outline and slightly tender on pressure; it lies on the right of the median line, but near the latter. The liver is of normal size, but a little tender on pressure. The spleen is normal. It is believed that some deep seated nodules, felt on deep abdominal palpation, are enlarged mesenteric glands. The thought had been entertained that the indurated irregularly oval mass felt in the right side of the abdomen, might be an enlarged spleen; but Dr. Baylor and myself determined that it was the stomach, enlarged, disfigured and displaced by cancer of its walls. The treatment was, of course, directed merely towards palliation of her sufferings and maintaining her strength. I am indebted to the courtesy of Dr. Baylor for the following facts in her subsequent history:

The patient never vomited again since I saw her, and had but little "nausea." Several weeks after her visit to Louisville, she told Dr. B. that she had passed "chunks of flesh" from her bowels, and believed that it was the disease which had then passed away. But her hopes were delusive. Her strength gradually but steadily declined. The ingestion of even small quantities of liquid food gave rise to excessive pain; solids she could not take at all; her bowels remained persistently constipated, ascites increased. She died suddenly on the 25th of August, 1877. The autopsy was made by Drs. Baylor and Saunders.

Body much emaciated. Marked edema of lower extremities. There was considerable effusion of clear straw-colored serum in both pleuræ. Heart and lungs were not examined. The abdomen contained a large quantity of serum. The liver appeared normal. The spleen and kidneys were not examined.

The stomach was kindly sent me by Dr. Baylor; it was contracted and indurated throughout its whole extent, so as to constitute a gristly, incompressible mass. The walls of the stomach were greatly thickened, especially at the orifices, which were also constricted, the pylorus being more constricted than the cardiac orifice. The lesser curvature and the cardiac end of the stomach were the seat of most abundant cancerous deposits. On section, the mucous membrane was found to be about three times the normal thickness for some distance around the pylorus. The submucous layer was composed of perpendicularly arranged trabeculæ, with whitish points at their lower margin. This layer was almost as thick as the mucous membrane; all the subjacent layers were also thickened. Microscopic examination was very unsatisfactory, as the stomach had been kept in alcohol. There was an excessive development of fibrous stroma; the interspaces were, for the most part, void of cellular elements, or they contained masses of indefinite character.

A most interesting point in this case is the cessation of vomiting about five months before death. The explanation of this is to be found in the great rigidity of the walls of the stomach, and the incompressibility of the organ, which not only prevented active contraction of its muscular coats, but also rendered impossible its compression by the abdominal muscles and the diaphragm. The great displacement of the stomach was a conspicuous feature, and gave rise to doubts whether the large indurated mass might not be the spleen; but the real character of the tumor was soon determined by a critical examination.

CASE II. On the 10th of May, 1878, I was called to see Mr. I. C. M., of this city. He was fifty-four years of age, was born in Germany, architect by profession, height five feet seven inches, usual weight one hundred and forty-five pounds. He had always been a very industrious and temperate man, and up to the beginning of the present illness, some two years ago, he had perfect health. His father died at the age of fifty-four, it is supposed of some "hepatic" disease; and his mother had previously died of consumption at about forty years of age. Two years ago he suffered from dyspeptic symptoms. Some time before Christmas, 1877, he lost all taste for tobacco-smoking, to which until then he had for many years been much addicted. About this time he also lost appetite for food, and about two weeks before Christmas he began to vomit after meals, but *he never had pain in the region of the stomach either before or after eating*. The vomiting at first occurred irregularly, then became more frequent, and at last occurred after every meal, *especially* when solid food had been taken. The interval that passed between ingestion of food and the occurrence of emesis, varied from twenty minutes to several hours. The matters vomited have been very acid and foamy; at first they were composed of the food last ingested, but of late he has vomited dark, very sour and offensive fluids, looking very much like coffee grounds. The amount of matter vomited apparently exceeded the quantity of food and drink consumed; of late he has vomited but rarely. He has suffered much from water brash. After eating, he would have a sense of weight at the pit of the stomach, somewhat uncomfortable, but not amounting to pain;

this uncomfortable feeling would continue until he vomited, when he felt relieved but exhausted and inclined to sleep. In February he was already losing flesh, and has been emaciating ever since.

Present condition.—He is very much reduced in flesh and strength, and is almost constantly confined to his bed. His complexion is sallow, and he has a "cachectic" appearance. The skin is cool and very dry, and emits a slightly unpleasant odor. Pulse, eighty per minute, and of good quality. The tongue is pale and flabby, and at the edges bears impressions of the teeth; it is not much furred, nor red and glazed. His breath has a very offensive odor. This morning he vomited some very acid and offensive fluid, which had the color of coffee grounds. During the last few days his bowels have been, and they are now quite loose, and the color of the evacuations is like the matter he vomits; as a rule, they have been constipated. When he drinks milk, he notices a white, "curd-like" substance in the evacuations. He has no appetite. After ingestion of food, he feels oppressed until relieved by vomiting. Solid food induces nausea, but after taking liquids, or when fasting, he has no "nausea." He does not suffer from pain in the stomach, nor has he done so at any time. Hot food is as well borne as cold.

Physical examination.—Heart and lungs appear normal; liver and spleen likewise. There seems to be no enlargement of peripheral or other glands anywhere. Abdomen is somewhat retracted from emaciation. The region immediately above and over the umbilicus appears somewhat prominent, and on pressure there is increased resistance in this locality. Palpation reveals a hard, oval, movable mass at the umbilicus, extending upward and to the right. The location of the tumor corresponds to the seat of the pylorus.

To the left and above the umbilicus, I could make out the stomach partly filled with food and somewhat dilated. There is dullness under percussion throughout the epigastric and upper part of the umbilical region. Patient is hopeful and in good humor. The ankles are somewhat edematous. The matters vomited contained no sarcinæ nor cancerous tissue, but some blood corpuscles could be recognized. The urine was free from albumen and casts.

The diagnosis of gastric cancer was made, and the treatment adopted had for its object to secure more adequate alimentation than had before been attained. Beef essence and milk, and old "*Hochheimer*" diluted with seltzer water, were administered by the mouth at regular intervals when well borne. Nutritive enemata, per rectum, were given night and morning, consisting of beef-tea with the yolk of an egg, and were retained without difficulty. Inunction with oil over the whole body was thoroughly practiced twice a day. Under this treatment he improved; vomiting became rare, bowels moved regularly, edema of the ankles passed away almost entirely. He began to wish for food, and frequently expressed a desire for various articles of diet. He gained strength sufficiently to take occasional rides and continue quite cheerful. There was still entire absence of pain, and the physical signs remained unchanged. About the first of June he became weary of medication, left off all treatment, and soon lost all he had gained.

On the 13th of June I was suddenly called to his house, and found him *in articulo mortis*. Some hours after his death, I received permission to examine his stomach. The body was reduced to an extreme degree of emaciation. Upper and lower extremities were edematous, and numerous purpuric spots were scattered over their surface. The abdomen was much retracted, and the tumor could no longer be felt on palpation. On opening the abdominal cavity, the stomach was found deep under the left costal arch; it was somewhat dilated, and the pyloric end of the organ, for about three inches from the valve, was indurated and enlarged. No trace of morbid change could be discerned on the duodenal side of the valve. The walls of the stomach were hypertrophied. On opening the organ, it contained large quantities of tenacious mucus. The mucous membrane, for some distance from the pyloric valve was thickened, and presented the appearance of luxuriant growth; its surface was uneven, and in some parts congested. There was a very thick and extensive connective tissue layer, and the peritoneal investment presented several dull white and thickened patches, near the pylorus. The pyloric orifice was greatly constricted, though still pervious. Microscopic examination showed that the case was one of "colloid cancer." No other organs were examined.

In this case, the entire absence of pain was a notable feature. According to Dr. Brinton's statistics, there is absence of pain in about eight per cent. of the cases; but I believe other observers have found the portion much less. Dr. Leube, in Ziemssen's Encyclopedia, gives it as his experience that absence of pain in gastric cancer is exceedingly rare. For some time before death vomiting had ceased in both these cases. Habershon has noticed that this is not rare. He supposes cessation of vomiting corresponds to the stage of extensive disorganization, and believes that it is due to such destruction of the terminal filaments of the pneumogastric nerve that there is no longer any irritation.

In the first case (Mrs. H.), there was a mechanical obstacle to the act of vomiting, but nausea and pain still continued, so that Habershon's explanation does not apply here. In the second case, disorganization was not so far advanced as to render it admissible. But besides, vomiting has been known to go on in cases where the stomach was almost entirely destroyed, as in the case of Longet, in which a young girl, with the intent to commit suicide, swallowed a large quantity of a mineral acid. She vomited continually up to the time of her death; and in the vomited matters were found numerous shreds of the coats of the stomach. At the autopsy, it was found that the stomach had been destroyed, except little portions of its walls, which were adherent to the surrounding parts. These were united to the adjacent viscera and the walls of the abdomen by inflammatory exudation, so as to form a cavity, which was not a stomach, but which communicated freely with the œsophagus. Yet this patient, without a contractile stomach, vomited freely during the last hours of her life.

LOUISVILLE, KY.

INFLUENCE OF THE MATERNAL MIND ON THE FETUS IN UTERO.

BY HENRY JAMESON, M. D.

Examples of deformity in newly-born children, where there seemed to be a relation between the existence of the deformity and the mental condition of the mother during gestation, are so numerous that a logical reasoner can hardly arrive at any other conclusion than that profound mental impressions, made upon her during pregnancy, do exercise notable effects upon the growth and development of the fetus. It has been a question what scope the mind has, and how far its influence extends in this direction; and as evidence bearing directly upon this question, we offer the following two cases:

The first was furnished Dr. Parvin by Dr. J. R. Weist, of Richmond, Ind., and is as follows:

Mrs. H., when ten months married, was delivered of a male child having harelip and cleft palate. Before marriage she was employed in a factory, where she had daily met a man who had harelip and cleft palate. His presence always produced a feeling of disgust and fright. During her pregnancy, she was haunted by the idea that her child would have a deformed mouth, having frequently before her a mental picture of her old fellow-workman. Her fear was prominently shown during labor, and she remains convinced that her mental state caused her child's deformity.

Since the labor alluded to, Mrs. H. has borne two perfect children, and in each case she had no fear, during gestation, that the child would be imperfect.

The second case was that of Mrs. S., who was confined about ten days ago, giving birth to a male child with harelip and cleft palate. Two years previous she had given birth to a perfect and healthy child. I did not see her during her last pregnancy until within a few hours of delivery. When I entered her chamber, she seemed in a state of great mental anxiety, and upon inquiry as to the cause, she told me that, during the early months of her pregnancy, she had seen about the basement of the house in which she lived an old beggar-woman with a harelip; and that the old lady had called at her room at twilight one evening, and that she had had a "horrible picture" of her in her mind nearly ever since, and that she was disturbed from the fear that her baby might have a mouth like the old beggar-woman's. I quieted her by telling that such things were hardly possible. We were, however, greatly disappointed to find, when the child was born in a few hours, that her forebodings were true.

In neither of these cases was there ever an instance of similar deformity, either on the side of the father or mother.

It is universally conceded that physical peculiarities or mental characteristics are transmitted from parent to offspring; but many authorities doubt that strong emotions or mental impressions can exert an influence so profound as to produce deformities and deficiencies of the fetus in utero.

If the facts are accepted in these cases, it would seem impossible to explain them as due to chance.

INDIANAPOLIS.

WHY SHOULD WE USE THE METRIC SYSTEM?

BY EDWARD WIGGLESWORTH, M. D.

Dermatologist to the Boston City Hospital, Instructor in the Harvard Medical School, etc.

Morally, as humanitarians, desiring the greatest good of the greatest number; whose God given best it is to act well our part in life, thus promoting universal progress and harmony. Even should our selfish ends not be furthered in the least by the adoption of the international decimal system, we should yet gladly adopt it if the nation as a whole is to be benefited by its introduction, and of this there is no doubt. The most virulently conservative exponents of the *vis inertiæ* of egotism admit that "in commerce, where we are dealing with large quantities, and where long columns of figures, whether expressing weights, measures or money, must be added up, and the amount multiplied, divided, or otherwise treated as an arithmetical factor, the metric system is a perfect marvel of elegance and simplicity."

Intellectually, as broad-minded friends of progress. It is the paradox of education that we must build from above downward. Important measures originate among the upper classes, which alone are fitted to comprehend the ultimate results of these. The benevolent despot may even educate at the point of the bayonet, and thus at once raising his vassals by intellectual platforms. The genius of republican institutions demands the gradual elevation of the masses by wheedling them up one intellectual step after another, with the proffered bait of immediate selfish advantage. The independent American of the lower class loses several trains on the railroad of progress, while being persuaded of the inferior celerity of pedestrianism. John Quincy Adams, even in his day, spoke of the metric system as "the greatest invention of human ingenuity since that of printing." Charles Sumner characterized it as "among the choicest possessions of an advanced civilization."

Socially, as patriotic American citizens; for, in spite of popular education, illiteracy is increasing faster than our population. It has been calculated by large committees of our ablest teachers that the complete introduction of the metric system will save a full year of the school-life of every child, and this year, thus saved, would be enough to turn the scale. In a country depending for the safety of its free institutions upon the education of the people, this fact is of vital importance. The introduction of this system would be desirable, if only as the most rapid method of obtaining the most correct results, even were we subsequently to change the denomination of these results back into the old denominations.

Practically, as economical, common-sense men; the system being the most accurate, consistent and convenient one known; simpler than others as our money is simpler than pounds, shillings and pence; multiplying and dividing by a mere shifting of the decimal point to the right or left; giving finer subdivisions than other systems, and saving money in business to such an extent that the London and Northwestern Railway alone reports an estimated annual saving of ten thousand pounds sterling by the use in computations of the metric, instead of the old system. How vast, then, would be the saving in the entire business of the country! In 1860, the foreign business of the United States equaled $762,000,000. Of this $700,000,000 was with nations using the metric system, and that too before Germany had adopted it. There are no tables, scales, or complicated relations—the meter measuring every possible dimension, the liter every capacity, the gram every weight. In the old systemless system of many and various units, the multiple might be 20, 3, 8, 12, 5½, 272½, etc. Even single weights varied among themselves, as, *e. g.*, long and short avoirdupois weight. So with measures of capacity:—A barrel of fish is 30 gallons; one of ale, 31½; one of cider, 32; one of beer, 27; etc. Bread is sold by troy weight; butter by avoirdupois. Druggists buy by one, and sell by another and a different table of weights. With the exception of measurements of time, which are unalterable, being natural divisions fixed by the revolutions of the earth, there is none to which this system is not applicable, whether of weight, length, surface, solid contents, angles, values, intensities, or forces.

Philosophically, as accepting the inevitable. For the metric system is sure to come, and we shall never be better prepared to make the change than now. We must use it as a means of education; not as a result to which we are to grow by degrees. Every civilized nation has adopted it except Russia, which has been delayed only by her war, and England, which never makes any change until forced. She was four hundred years behind the continent in adopting our present arithmetic! Yet even in England it is legalized, and makes annual progress in the British Parliament. Our scientific men all advocate it. Our Congress has legalized it. Large manufacturers and merchants, in foreign trade, use it more than is generally known. Civil engineers, architects and chemists employ it. It is exclusively used by the United States Coast Survey, and the United States Marine Hospital Service. The American Medical Association and the medical societies of the leading states, have recommended it most cordially by resolutions: finally, should we delay long, commerce with, and immigration from, foreign countries will force it upon us. Moreover, it is practically indestructible, whereas the standard weights of Great Britain were destroyed by fire in 1834. There are now twenty-seven standards of the metric system in different countries, the United States possessing one. These are exactly alike, from a single casting of ten parts of iridium and ninety of platinum. Nothing short of a cosmic convulsion could destroy all of these at once.

Professionally, as physicians. Because this system most nearly approximates to a perfect one; embodying, as it does, the most careful and delicate work of the International Metric Commission, composed of scientific men from all countries. Because it is *international*, and medicine is as cosmopolitan as human nature itself. Because of its great *convenience* in writing and compounding prescriptions, in dividing doses, and in computing quantities required during given times. Because of its *safety*, due to its *uniformity* and *simplicity*. It may be learned in five minutes. In complexity there is always danger, and the resemblance of the signs of the scruple, drachm and ounce has already not seldom proved fatal to human life. The metric system dispenses with the signs of the quantities, employs Arabic figures instead of Roman numerals, and assures the physician of more competent service, because from more educated pharmacists, since these are always the first to adopt it. It is decimal; and a perpendicular line, instead of the decimal points, obviates any possibility of error from this source. It is allied to the change already made by Americans from pounds, shillings and pence, to dollars and cents. Because of its *delicacy* and *accuracy* for the chemist and pharmacist; and here the beauty of the system is especially apparent, for it provides denominations of weights applicable to the smallest quantity which the physician can prescribe, the old grain being by far too large and coarse a unit for modern medicine. Moreover, the English and American graduates are both in use in this country, and yet are not alike. There is a difference of eighteen grains in the weights of their fluid ounces. Then, too, if *f* is omitted before the ounce symbol, either the graduate or the troy ounce may be used. Finally, because it deals preferably with weights alone, while admitting the use, if desired, of both weights and measures as at present.

Boston, Mass.

CARELESSNESS IN ADMINISTERING CHLOROFORM.

BY G. B. PRATT, M. D.

Late Resident Physician of the Kings County Hospital, Brooklyn.

The frequency of death from chloroform, even in these days, is somewhat alarming. One can scarcely take up a medical journal without finding at least one case recorded. Whether these accidents occur through the carelessness of the operator, or are due to some condition of the heart, which ascertained would contraindicate the use of chloroform as the proper anesthetic, is not for me to say. But I am free to state that I feel confident, if it were possible to obtain the facts in regard to each individual case, reported or unreported, of death from chloroform, a certain proportion of them would be found to be due to the carelessness of the party administering the anesthetic. This is, indeed, pretty plain language; but I am referring to no particular case, and trust my unfortunate brother will take no offense.

I am led to make this statement not only from personal observation, but also from the expressions of medical men in private conversation. Nearly every physician with whom I have conversed on this topic, has been able to recall more than one instance in which the death of the patient was unquestionably due to lack of care on the part of the surgeon. As an example, permit me to cite a case from my own experience. I do this perhaps the more readily, as the result was not so disastrous as for a time it threatened to be.

Mary L., American, aged twenty-three years, came to my office one day last March, to consult me in regard to some malformation about the external organs of generation. An operation was requested, and deeming it expedient, a day was appointed. As is my custom under such circumstances, I cautioned the patient about eating too heartily of the meal previous to the appointed time, and in this case was particular in enjoining a light dinner. I also told her to *leave her corsets at home.* The day arrived, and with the hour the patient. I questioned her as to following my instructions. She said that for breakfast she ate scarcely anything, having no appetite, but when dinner hour came she was quite hungry; still she ate very sparingly, and was anxious to be through with the operation that she might satisfy her appetite.

My associate, who was to give the chloroform, being at liberty, came into the room, and heard me tell the young woman to step into the next room, remove her under-garment and loosen all of her clothes. She returned in a moment, saying she was ready. Being placed in the operating-chair, the administration was begun. I was seated beside the chair, holding the patient's pulse. All went nicely for about two minutes, when the pulse began to flutter and grow weaker and weaker, until imperceptible. Respiration had ceased. Tearing open her dress my eyes lighted on her corsets, bound firmly about her waist. Cutting the strings with one sweep of the knife, I commenced artificial respiration, while an assistant gave hypodermic injections of brandy. Soon a deep inspiration, followed by another and still others, sent a thrill of joy to all our hearts, and we knew that our patient was out of danger. The operation was then performed.

After all my forethought, I yet neglected to see if my instructions had been followed. How easy it would have been for me to have passed my hand over the girl's dress. The omission of this simple procedure was evidently the cause of all our trouble. During the operation the patient vomited quite a quantity of various kinds of food. She had thus deceived me not only in regard to the loosening of her clothes, which I *might have* discovered, but also as to her having eaten, which I *did* discover; and yet she was a young woman of average intelligence, and fully comprehended the object of my suggestions.

I might instance other cases, some of which were of a more serious nature, and in which it would not be necessary to refer to the peculiar action of chloroform upon the heart for an explanation of the grave result, but will rest satisfied with the above recital. This article is not intended as an apology for chloroform, but simply as a reminder, to all physicians and surgeons using it, of the great care necessary for the safety of the patient, and their own subsequent peace of mind. The thoughts of a conscientious physician, while standing over the lifeless form of one who but a moment since was all life and animation; of one who had lain down quietly and trustingly, leaving all to his care and skill, giving life into his keeping without a moment's hesitation—the thoughts, I say, of a man under such circumstances can be better imagined than described. And if aught I have written in this brief space shall be the means of causing any of my medical brothers to exercise a greater amount of care in the administering of chloroform, or any other of our anesthetics, I shall not have written in vain.

ELKHART, IND.

OXIDE OF ZINC OINTMENT IN MEMBRANOUS VAGINITIS.

BY THEOPHILUS PARVIN, M. D.

Five years ago my friend, Dr. Bell, of Logansport, Ind., sent me a German lady to be operated on for a vesico-vaginal fistula of some sixteen years' standing.

The fistula was scarcely large enough to admit the end of the finger, was median, and thus far favorable for an immediate and successful operation. But the vaginal surface, for half an inch or more around the margin of the fistulous opening, was covered with a dirty whitish membrane, the forcible removal of which was painful, and left a raw bleeding surface. This deposit was also found in patches on some other parts of the vagina, and also on the inner surfaces of the *labia majora*.

In vain were the patches removed, and the surfaces to which they had been attached brushed with solutions of nitrate of silver, of carbolic acid, and of sulphate of zinc, and with tannin in glycerine; in vain were scrupulous and frequent cleansings of the parts enjoined, and mucilaginous injections used: in spite of all, the membranes appeared again, often within twenty-four hours.

Finally, after the failure of these and various other means, at the suggestion of Dr. Smith, one of the hospital *internes*—the patient occupied a private room at the City Hospital of Indianapolis—I used large tampons of patent lint smeared with oxide of zinc ointment, and in a week the improvement was so great that I operated upon the fistula. The operation was successful, and after the closure of the fistula, there was no return of the diphtheritic deposit.

INDIANAPOLIS.

FOREIGN CORRESPONDENCE.

DR. YANDELL'S LETTERS FROM ABROAD—No. IV.

London, June 28, 1878.

My dear Parvin: Did you ever have the nettle rash? As long as I continue to like you, I hope you never will. I became personally acquainted with the nuisance this month two years ago. In June, 1877, I had a second attack. Last week I lost four days with a third seizure, and just seven days after I am the victim of the fourth. The sting of the neurosis, which in its travels manages to touch on every inch of one's cutaneous territory, is bad enough alone, but when you must add to this the quinine and the *et ceteras* with which you are required to fill yourself in order to drive it, the plain result is about as much misery as one can carry. I am staggering under this load to-day. And yet I must write whether or no, else the fourth letter from "abroad" will not reach you in season for the August number of the Practitioner. I am quite in the fix of the stage manager who had arranged for a mimic snow storm. The snow flakes were to be represented by bits of white paper. Before the time came for the snow fall to cease, the supply of white paper was unfortunately exhausted. Rather, however, than do without the remainder of the storm, the stage man substituted brown paper for the white, and thus the play went on. If I snow some brown paper to-day, it will be because urticaria and cinchonism have cut short my supply of the white. The letter *must* be written.

I think it was Mr. Slick, of Slickville, who said he always walked in the sunshine. That may do in Slickville, Canada, but it will NOT do in London in this month of June, where the mercury in the glass stood at 84° Fahr. yesterday morning at eight o'clock, in the shade. Where it went to later, I didn't go out to see. The entire day was oppressive, and the night was well advanced before the air became pleasantly cool. Such heat is extremely unusual here, and the Londoner is not prepared for it. So when it comes, he swelters, and I was going to add—swears, but the well-bred man here seldom eases his mind or cools his body in that way. Profane swearing is quite unheard among genteel people here. Some weeks ago a lady, twenty-five years old, assured me that she had never in her life heard an oath used. Yet she had been much in society, and had three brothers older than herself. I am afraid that not many of our countrywomen of the same age, outside of deaf-mute asylums, could say as much.

The Londoner, I remarked, was not prepared for such heat as he is now enduring. Nor is he. Merino underwear, heavy tweed trousers, and double-breasted cloth coats, buttoned well up to the chin, stove-pipe tiles, thick neck-ties, and high-quartered shoes, which constitute his morning or business costume, do, it is true, lend to his fine person a very stylish air, but they are a trifle heavy for the season. The Mexican's summer dress, which is perhaps simple to a fault, consisting, you know, of a sombrero and a cigarette, would at least be a cooler if not so becoming a dress.

When Mr. Bull is strictly on a peace footing, and is thus unable to seek the tented field, because there is none, he fills the hiatus and keeps his martial ardor alive by military pageants in the parks; and thus, if not dealing with grim-visaged war in fact — which he prefers — he gets at least its pomp and circumstance. He could not be happy otherwise; for our venerable progenitor, in spite of his occasional assurances to the contrary, is as essentially bellicose as he has ever been from his youth up. He is the embodiment of a severe simplicity in most things, but he likes a deal of display in his soldiers. His eyes actually kindle at the sight of scarlet clothes, great bear-skin shakos, clanging sabers, burnished cuirasses and glittering helmets. He admires these things. What he admires much, you know, he is proverbial for getting in the long run. He admires all pageants which serve to suggest the greatness of himself and family, but when in addition they typify the national valor, he never wearies of gazing on them. Hence he delights in the tramp of armed men—if they be his; and his ears rejoice both in the reveille and tattoo, if the kettles be rattled by his drummers.

A military parade came off here a few days since, which the old gentleman enjoyed greatly. He makes it a point to enjoy it whenever he can. It was in honor of the Queen's birthday. The custom of celebrating such an occasion by a review of the crack battalions on duty near the person of the sovereign is quite an old one. The review is held in St. James's Park, the open ground in which, though too small for maneuvering any large body of troops, is well adapted to the convenience of the public in allowing thousands of eager spectators to witness the parade. The morning was propitious. The line, which was formed at ten o'clock, was composed of a squadron of the Life Guards and six companies from the Grenadiers and Coldstream Guards. Colonel Freemantle, whom I met so pleasantly near Canton, Mississippi, this month fifteen years ago, was the field officer of brigade. Colonel F. is as slender and almost as youthful-looking as when he bivouacked with General Johnston and staff, in the Confederacy; but he has a very soldierly bearing, and an uncommonly fine, clear voice, his orders being distinctly heard in all parts of the field. The crowd, which was immense, was kept from the parade-ground by a cordon of the Coldstream Guards. The band of the Life Guards, all mounted on gray horses and dressed in the uniform of the court trumpeters—golden tunics and black jockey caps—a gaudy-looking lot, were on the right of the cavalry. The silver kettle-drums of this regiment were a present from William IV., and of course are most highly valued. They were in charge of a single drummer, who was made conspicuously solitary by standing between two great troopers with drawn sabers. Presently the sound of a bugle announced the approach of the carriages of the royal family. "Eyes front!" rang out on the air, and lo! the British Guard stood as motionless as though it had been hewn out of marble. It was a very fine sight, and I don't wonder at the vast multitude who had collected to witness it being proud of it. Presently the staff of the Horse Guards, escorting the Duke of Cambridge and the Crown Prince of Germany—one in the uniform of Colonel of the Grenadier Guards, and the other in the beautiful white dress of the German Life Guards—appeared, and rode down the line. The order was given by Col. Freemantle for the royal salute; the colors of the infantry were lowered, guns were brought to "present," the bands struck up, and I was almost ready myself to join the command, if the place of quartermaster had been offered to me. In another moment the muskets were brought back to shoulder. The generals and staffs then rode along the line. This over, the ceremony of trooping the colors was had, the bands filled the air with music, the several commands then marched by in slow time, and the pageant came to an end.

This people is essentially a martial one. I have been here during the mobilization of the volunteers—thousands of whom, under the hands of the drill-sergeant, have been converted in a few weeks from civilians into as soldierly-looking men as you would wish to see. They already have the tread and wear the air of veterans; and as they march through the streets they excite somewhat the enthusiasm their counterparts did on our side the Atlantic in 1861. The very stiffness which unfits the Englishman for capering to the lascivious music of a lute, becomes an element of positive strength when he hears the order to "shoulder arms!" It tends to give him both that precision of movement and fixed rigidity which, in some degree at least, begets coolness under fire. Add to these certain matchless qualities possessed by the entire Anglo-Saxon race, and you have a union which, in the language of the press, has enabled British battalions to pluck victory on so many battle-fields from Fontenoy to Inkerman.

After the review came at night the illumination. This display is confined to Western London, which is the Court end of the metropolis. To my eyes it was a very tame affair. The sight-seers were many, but the sights to see were few, indeed. A small number of houses only, either public or private, were lit up. The letters V. R., plain and variously intertwisted, made visible by gas jets, shone here and there, and made much the larger part of the designs. The shop of Poole, the tailor, was by far the most conspicuous in its display, and here the lights, arranged to blaze behind different and brilliant colored glass, produced a really fine effect. The design represented "a stately pleasure house, with crystal and golden columns, emerald wreaths, and tawny lions, both *couchant and rampant.*" The next most noticeable place was a celebrated Scotch goods house in Regent's Quadrant, which flamed with many-colored thistles. Elsewhere there were crowns, wreaths and bowls of flame. I saw no where either calcium or electric lights. But however small and inferior the illumination as such was, the crowd, which was vast indeed, was most orderly throughout. In spots it was joyous. It didn't yell, and I saw no drunken people in it. It walked and talked and laughed and smoked and looked on, and indulged in the very harmless sport of squirting rose-water from small syringe vials into each other's faces. I thought the fun rather good until three or four vials were leveled at me at the same moment, when I got more of the pleasant-smelling fluid than I bargained for. The vendors of the little vials greeted you at every step, offering their wares at "h'only a penny."

I have now witnessed as many ovariotomies as I care to see. The larger part of them have been simple and of easy execution. A few have been formidable, and one ended in death before the patient was removed from the operating-table. In this case the adhesions were so extensive, and implicated the pelvic organs to such degree, that between the shock and hemorrhage the patient succumbed just as the operation was completed. If there be one characteristic which, more than another, distinguishes the operators whom I have seen do ovariotomy here, it is the extreme attention they give to the details of their work. They are all cautious; some of them, I think, needlessly slow. They guard especially against hemorrhage, seizing and twisting or tying the very smallest bleeding vessel. I do not observe that even Mr. Wells exhibits more care or caution than Mr. Thornton or Dr. Bantock, his successors at the Samaritan Hospital. He and his assistants are perhaps more silent, for there is not a word spoken by either during the entire operation. The stillness which pervades the scene is, I must say, to me somewhat oppressive: it is funereal. Everything which can by any possibility be required by the surgeon during the operation is put within easy reach. Each assistant knows just what will be required of him. And thus, with not a word spoken, everything moves as noiselessly and as methodically as well-oiled machinery—a veritable pantomime from beginning to close. In every operation I have seen done, catgut was used for ligatures, the ends being cut close. The pedicle was secured by silk and returned to the abdomen, the incision in which was closed by silk sutures.

A few weeks ago a patient was admitted to the Samaritan Hospital, with what was believed to be a calculus of the right kidney. The staff of the hospital was unanimously of that opinion. Certainly the history of the case, and repeated examinations of the organ through the abdominal walls, pointed to calculus. The pain and suffering were such as to make an operation desirable. The patient wished it performed. Mr. Thornton, Mr. Wells being present, did it. He cut cautiously and slowly down upon the kidney from behind. On reaching the organ this was found to be enormously enlarged, projecting some distance below the crest of the ilium. When incised, a pint or two of urine dashed out. Mr. T. then carried his finger, and subsequently a long probe, into the kidney through the opening, but failed to find any stone. The cyst, if it was one, was well syringed with antiseptics, a drainage-tube inserted, a large portion of the cut in the integuments brought together by sutures, and the patient placed in bed. I watched the case with much interest. Nothing occurred to excite the slightest apprehension. The patient said the old dragging and weight and pain were gone. Her temperature never rose to 100°; and so far, indeed, as her several symptoms went, she did not even seem disturbed by the operation.

Mr. Thornton has recently reported two cases of chronic cystitis in the female, which he treated with marked success by injections of quinia into the bladder. He gives the credit of the practice to Mr. Nunn, of the Middlesex Hospital. I fancy the practice originated in Germany. I myself used quinia in this way twelve and more years ago; and I know many Kentucky physicians who also do, notably Dr. Douglas Morton and Dr. Ely, though the latter prefers injections of chlorate of potash.

Mr. Richard Davy has now practiced excision of the cuboid bone for relief of talipes-equino-varus, in all nine times, and with almost uniformly satisfactory results. Before operating on his last case—which I saw—he remarked to the class, at the Westminster Hospital, that while his success in the operation had been all perhaps he should desire, that he would still reserve the procedure for the severer cases of the affection. He did his first operation on the living subject in 1874. His mind was, perhaps, as much directed to the procedure as a possible means for the cure of this variety of talipes, by a case which occurred in the practice of his colleague, Mr. Barnard Holt, where, in a twelvemonth after the cuboid bone had been removed for caries unattended with club-foot, a talipes valgus, the antagonistic variety to varus, occurred. The loss of the bone in no wise interferes with locomotion. The injury inflicted on the outer wall of the foot heals kindly, while the subsequent treatment of the case by instruments is simplified and facilitated in every way.

Mr. Davy first saw this patient in 1874. He was then fourteen years old, and had been almost uninterruptedly in the hands of orthopedic surgeons. After having a plaster cast taken of the foot, Mr. D. excised the cuboid bone in January, 1875. The benefit which ensued was very great, and the contrast between the shape of the foot, as shown by the cast before and after the operation, was most striking. Yet the member was not exactly all that could be desired, and Mr.

D. thought it might be much improved by the removal of a wedge from the tarsal remnant, so as to make the patient absolutely a plantigrade, and to banish in future all surgical treatment and instrumentation. Mr. Davy narrated in a few words his experiments on the removal of the cuboid bone in 1873; how he had practically demonstrated that an accurate excision of a tarsal wedge was required for a complete cure: and while admitting that prolonged instrumentation, cutting tendons, manipulation, etc., would correct distortion temporarily; yet so surely as a urethral stricture recurs, so also would the deformity until the bone assumed permanent misshape. Hence he thought it the duty of the surgeon to strike at the root of the matter by rectifying bony distortion, and by osseous union preventing its recurrence. The lecturer added that he much preferred one large operation to a host of smaller ones, and he was able to say now, after his ninth case, that the results of attacking the tarsal arch (osseous), for the cure of club-foot, were sufficiently gratifying to ensure their repetition.

The patient being chloroformed and Esmarch's bandage applied, the foot to be operated on was put in a stationary iron vice, the inside of the jaws of which were covered with cork, so as to insure against injury of the structures. He then cut directly down on the outer aspect of the foot to the cuboid, dividing the indurated skin and bursa. A second incision, extending toward the dorsum of the foot, gave a T-shaped cut. Two stout wires were now inserted, one into each flap, and used as retractors. The upper and outer surfaces of the cuboid were then completely exposed, and with a chisel with a very thin blade the necessary wedge was carefully cut from the bone. The wound was closed by several sutures. No dressing was applied further than an internal foot-and-leg splint, secured by a gum and chalk bandage. The operation completed, the foot was brought at once and without difficulty into its proper line; and, without some untoward result, the lad will soon walk out of the hospital a plantigrade.

Mr. Davy said that when he removed the cuboid entire, he was in the habit, after the preliminary incisions, of screwing the bone-forceps well into the cancellous structure of the cuboid, and then expanding the blades until a firm leverage is obtained. The ligaments around the bone are next divided, and the bone being well lifted out of its place, injury to the tendon of the peroneus longus is avoided by pressing the edge of the knife close to the under surface of the bone itself.

About the time that Mr. Davy was operating at Westminster, Dr. Schede, of Berlin, as I see in a medical journal, exhibited at the medical society in that city, a case of congenital club-foot, in which he had removed a wedge-shaped piece of the tarsus with successful result. A similar case was shown by another surgeon, Dr. Meusel, who, very wisely I should say, cautioned against removing too much of the bone, lest the foot be made too short. Mr. Bryant did the same operation last week. He did not use the vice recommended by Mr. Davy, and which I think really facilitates the work. Mr. B. told me he did not find it necessary. Mr. Davies-Colles, of Guy's Hospital, has, I learn, operated with very excellent results in quite a number of cases.

The tercentenary of Harvey was recently commemorated by the Royal College of Physicians, in a banquet at their institution. Dr. Risdon Bennett, the president, occupied the chair. Professor Huxley, Dr. Richardson, Dr. Lyon Playfair, Sir Wm. Jenner, Dr. Quain, Mr. Gladstone, and many other notabilities in science and politics, were present. The speech of the evening was made by Professor Huxley. I make room for one or two extracts, which will serve to show the drift of his remarks. He said:

> "Harvey's title to their honor and respect seemed to him to be essentially three—first, that he was the discoverer of the circulation of the blood; secondly, that he wrote '*De Motu Cordis et Sanguinis*,' and, thirdly, that he was the author of that remarkable treatise, '*De Generatione*,' in which were laid the foundations of that great doctrine of genesis which underlay all our modern conceptions of development. Harvey's first title, as they were doubtless aware, had been challenged,

but, so far as he knew, to the signal confusion of the challengers. Having taken great interest in the question, he had endeavored to acquaint himself with all the documents bearing upon it, and he had not the slightest hesitation in asserting that William Harvey stood almost alone among scientific discoverers, not merely in the fact that, as Hobbes said of him, he had the great good fortune to see the novel views which he had proposed accepted within his lifetime, but also in this—that his doctrine of the circulation of the blood, as he put it forward, was not only absolutely original as regarded himself, but absolutely novel in respect to all those who had gone before him. Previous to the year 1628, when Harvey expounded his views, there was not, he ventured to assert, in any published work, he would not say a statement, but the hint of a suggestion, that anybody had ever imagined that a given particle of blood starting from the left side of the heart returned in a short time to the point from which it started. That was the substance of Harvey's doctrine, and those who wanted to show that Harvey was anticipated would have to show what, he ventured to declare, did not exist. The memorials which they had heard of as being erected in Italy and Spain to other discoverers of the circulation of the blood were, therefore, to those acquainted with the facts of scientific history, nothing more than a proof that, even outside churchyards, inscriptions were not always to be depended on as historical. He had no sympathy whatever with chauvinism of any kind, and least of all with that particular form of it which introduced national jealousies and national pride into the regions of science. He trusted they would all be ashamed to allow their judgment as regarded William Harvey's merits to be influenced in the smallest degree by the fact that he was an Englishman; but the incontestable fact being that Harvey was an Englishman, he saw no reason why they should not take an honest satisfaction in being members of the great race which had produced him. And when they reflected that within a century this English stock of ours had produced two such men as Harvey and Newton he thought they had not only reason for the self-congratulation he had referred to, but that they were under a heavy obligation not to allow themselves in these times to be seduced from the path of science by mammon-worship, or deterred from following it by the blind and ignorant outcry against scientific investigation.

"The second title which he had attributed to Harvey, namely, his authorship of the work, '*De Motu Cordis et Sanguinis*,' might surprise some, considering that this was only a treatise of fifty pages. But it was to be borne in mind that it was not only a model of scientific statement, but that, in addition to the doctrine of the circulation of the blood, it contained the first exact explanation ever given of the mechanism of the heart. In his work, '*De Generatione*,' which constituted his third title, Harvey grappled with one of the most difficult problems of biology. It was a problem which from the nature of the case could not be solved without the aid of that invention of later times, the microscope, and Harvey had at the most a little hand-glass. His theory of the essentials of the generative process, and of the first changes that occur in development, were consequently erroneous, either directly or by their inadequacy. But it was the privilege of great genius to be able to distinguish instinctively between truth and error; and in this particular case of Harvey's, they found themselves in presence of what was one of the most wonderful facts in the history of science, namely, that although entirely wrong as to his primary data and as to his general conclusions, yet in the matter of theory he anticipated, almost verbatim, the results at which men had arrived only in these recent times. For a hundred years his successors went entirely wrong, and it was only in the middle of last century that they began to go back to Harvey's traces. It not infrequently happens that the reputation of men of genius was besmirched with some unfortunate failing, but there was no stain upon Harvey's escutcheon. Nor was he a man of one pursuit or one book. A diligent lover of the classics, a great student of philosophy, faithful and generous in all the relations of life, the most that was said against him, even in the shape of gossip, was that he had a hot temper, and could say sharp things on occasion. He certainly should not venture to throw stones at him for that. Whether gossip was right or wrong in this matter, so far as Harvey's private life was concerned, he did not suppose, judging from those of his writings which remained, that since scientific controversy existed there ever was a man who, having been so much attacked, took the trouble to defend himself so little, or who, when he did defend himself, spoke with such altogether angelic sweetness. As regarded his other personal qualities, the more one studied his works, the more one was inclined to represent him to oneself as a man who was willing enough to receive honor if it came to him, but who, if it did not come to him, could do exceedingly well without it; and who found his great pleasure and satisfaction in the peaceful pursuit of that inquiry into nature of which he constantly boasted the charm."

Mr. Gladstone responded to the toast, "General Science and Literature." The President having stated, in his opening remarks, that none of the members of the profession had gone to the peerage, but that two dukes and a marquis had come to them, Mr. Gladstone said:

"Dr. Bennett might have taken up much higher ground on behalf of his profession, because sooner or later all members of the peerage, equally with commoners, were obliged to knock at their doors and request their assistance. Great as had been their profession in former times, every one must feel that it was growing greater, wider, more solid from year to year and from generation to generation. He did not speak now of literary culture, for although he felt that literature had stood in a very important relation to the medical profession of late years; still literature was necessarily fluctuating, and had been so in all periods of the world. They had gone through a great literary age, as other races had done before, and they could hardly expect the succeeding generation to maintain the same literary level. But as regarded science the case was very different. Nothing here seemed to be required but that patient labor which it was in the power of all men to bestow, together with those large opportunities for observation which we all enjoyed in some degree if we would but use them, and which medical men, perhaps, enjoyed in a greater degree than any other class of men. As society was developed, as civilization became more elaborate, as the wants of men, as the enjoyment of men, and as, perhaps, also the dangers of men multiplied, and as the connection of body and mind, which was daily under their eyes, became revealed, they would find their way more and more into the very innermost chambers, so to speak, of human nature. As science progressed their responsibilities would increase, but he was sure they would never be wanting in that capacity and zeal which had ever distinguished them, and that in proportion as their influence over human welfare and human happiness increased, they would obtain that respect and gratitude which, amid their imperfections, mankind were ever ready to extend to their benefactors."

On Wednesday, June 26, Prof. Burdon Sanderson delivered the Harveian Oration before the Royal College of Physicians. The distinguished teacher begun by repeating the three purposes which Harvey, in his deed providing for this oration, required the orator to have in his mind:

> "One of these was that he should exhort the Fellows of the College to concord; the second, that he should call to mind our benefactors, and stir up others to follow their example; and, finally, that he should exhort the Fellows and Members of the College to study and search out the secrets of nature by way of experiment."

Touching on the two first, Dr. Sanderson exhorted the Fellows at much length, and in a most interesting way, "to study and search out the secrets of nature by way of experiment." He especially urged the younger men to take up the work. Of the older members he said if they had not already learnt the lesson expressed in their motto, it was too late to learn it now; the work would have to be trusted to younger hands—to those who had more leisure.

> "If research is to be done at all," he added, "it must be begun in the morning of life. One reason of this is the internal condition of intellectual fitness; the other, the external one of leisure. Of the first I need say little. It can scarcely be questioned that it is in early maturity that the mind is most capable of the continuous struggle of which, as we have seen, research consists. For those qualities of mind which specially belong to the naturalist—the lust of knowledge, the love of truth, and the joy of successful effort—are apt to lose their power over us as life advances. As a rule, therefore, we should begin to work early, and work while it is day, for the night cometh, when no man can work."

Dr. Sanderson then pointed out how such studies should be conducted. As regards leisure for this kind of work, he said it was generally understood that a man who aims at the high professional position occupied by the Fellows of the College of Physicians, may reckon on ten or twelve years which are for the most part at his own disposal. Much of this time he would have spent in the German schools, which he thinks afford much better fields for experimental research than the English colleges. He thought the London schools afforded everything required for the acquisition of the skill and knowledge necessary for the practice of medicine and surgery, but were deficient in matters of experimental research. He said:

> "It is not merely because the imitation of Harvey is denounced by public opinion and impeded by legislation, that it is desirable that he should cross the Channel, but rather that during the last twenty or thirty years we in England have, like the foolish virgins, been quietly allowing our lamps to go out. While we have been contenting ourselves with putting up statues to Harvey, dining in his honor, recounting his great achievements, we have handed over to others the doing of his work. Until, therefore, England again takes the place that formerly belonged to her in physiological research, those who desire to devote some part of their life to searching and studying out the secrets of nature, will act wisely in so arranging their plans of study, that some years may be spent in the schools of other countries."

He then paid this tribute to Germany, who, he said, "recognizing that the progress of the art of healing depends as certainly, though not so directly, on science as the art of war, has erected during the last ten years, in all the great centers of medical learning, specially endowed institutions or schools for the experimental study of those two sciences, which together make up the one science of medicine, namely, Pathology, the knowledge of the cause and nature of diseases; and Pharmacology, the knowledge of the mode of action of remedies." He then asked how it happened that the countrymen of Bacon, Newton, Harvey, John Hunter, and Chas. Bell, with all their boasted wealth and unequaled resources, and who, in certain directions, spent their money so lavishly, should make no provision for the prosecution of experimental research either in pathology or therapeutics? The answer with which he concluded his admirable discourse, was in these somewhat mournful words: "That the time has not yet come. Sooner or later—perhaps twenty years hence—it will certainly be recognized that the scientific investigation of the essential nature and origin of disease, and of the mode of action of remedies, is a matter of no less importance to the public welfare than the application of the sciences of physics and chemistry to the invention of new methods of destroying human life."

It certainly required a man of nerve to dwell in so plain a way on such very unwelcome truths. The lecture will appear in an early number of the British Medical Journal, where you will have an opportunity of reading it in full.

On Tuesday, June 24th, Mr. Bryant performed left lumbar colotomy upon a man aged thirty-nine years, married, with five children, who had never had syphilis. He had been quite healthy up to fifteen months before, when he first had constipation which medicines failed to relieve, and anal troubles which were regarded and treated as piles. After a time anal discharges appeared, with occasional blood and mucus with the motions. The difficulty in defecation steadily increasing, he at last went to an old Guy's student, who examined him *per anum*, and finding extensive disease about the bowel, sent him to Mr. Bryant. On admission, the man was emaciated but not otherwise cachectic. The abdomen was distended, and in the left iliac fossa tender, and on palpation some tumor could be made out, but whether fecal or otherwise could not be determined.

An examination *per anum* revealed a mass of new growth in front of and surrounding the bowel, which so encroached upon its lumen as almost to occlude it; probably a No. 10 catheter could alone pass. The disease was supposed to be cancerous. Under these circumstances, as excision of the mass was out of the question, and the expectant treatment could only end in a speedy death, colotomy was advised and consented to.

Mr. Bryant remarked upon the benefit which the patient was likely to experience from the operation as now about to be performed, the man not being too feeble or exhausted to derive full advantage. As a rule, the operation was put off too long; and this fact was to be explained as much by the reluctance on the part of the practitioner in attendance upon the case to advise its performance, as by the patient to have it performed. For his part, after having had at least fifty operations, he never regretted having performed it, although he had often regretted not having performed it earlier; for where colotomy was successful, it always added immensely to the patient's comfort, and generally increased the span of the patient's life. He added also that the objections to the operation were really theoretical, for patients with artificial anus had on several occasions told him that they would not have the artificial opening closed, even if desirable, as the inconvenience connected with it was not so great as has been imagined.

Mr. Bryant is an exceedingly pleasant lecturer. While he was speaking the patient was brought under chloroform, when the operation was done after the manner described by Mr. B. in his work on surgery. Not a teaspoonful of blood was lost. Mr. Bryant recently read before the Medical Society of London an exhaustive paper on the Surgical Treatment of Intestinal Obstruction, which, if I have time, I must make an abstract of for the readers of our journal. The discussion which followed the paper served to show that all Englishmen even are not amiable, one surgeon at least speaking in a most unbecoming way concerning certain historical points in the essay. Mr. B. made no reply. Perhaps this is the best way to deal with such people, but I am not altogether sure of it.

Through the kindness of Mr. William Adams, I have been enabled to see several cases of broken nose in his private practice, which were being treated by forcible straightening and the subsequent use of retentive apparatus. He gave me, at the same time, the text of some remarks he had made last winter on the subject before the Medical Society of London. He divides cases of broken nose into two classes:—1. Where the cartilaginous septum is depressed and bent to one side, so as to plug one nostril, interfere with the passage of air, change the voice and give rise to ozena by causing retention of the nasal mucus; 2. Where, in addition to the above, the bones themselves are broken. For the operation, Mr. A. uses a pair of large flat-bladed forceps, with which he straightens the bent cartilaginous septum, and when possible raises the lower margin of the fractured bones; afterwards retaining the septum in position by an ivory clamp, and keeping the nose in position by a nose-truss. He still uses his forceps, first applied by him in 1861; but the retentive apparatus for the septum, and the truss he now recommends, are decided improvements on those which he used in his earlier operations. The present instruments, consisting of an ivory clamp with rack-and-pinion movement, and a truss made of a broad metal forehead-band, with two double-action rack-and-pinion movement levers, with adjusting plates, seem to answer the purpose well. Mr. A. said that the necessity of retentive apparatus in cases of broken nose had been questioned by some surgeons, from the absence of the causes of displacement by muscular action met with in the extremities and other parts of the body; but, if it could be dispensed with in some cases of recent injury, he considered that it never could be dispensed with in cases of some months, and frequently of several years after the injury. He referred to three cases which had been under his care, occurring in young ladies between thirteen and sixteen years of age, who had met with accidents eight or ten years previously by falls.

> "Increasing deformity of the nose was observed at this period of development; and, upon examination, one nostril was found to be completely plugged by lateral bending of the cartilaginous septum; the breathing and the voice were both interfered with, and ozena generally existed. In these cases, the nose was completely and permanently straightened by the plan of forcibly straightening the septum, and afterwards continuing the use of the retentive apparatus, the ivory clamp being used continuously for three or four days and nights, and afterwards at night only; whilst the nose-truss was worn during the day for several months."

I know that much of this is not new to you, yet I have thought it of sufficient interest to make a note of.

Mr. Adams and Mr. Fisher have recently been experimenting, at the National Orthopedic Hospital, with Ahl's porous felt as a substitute for the plaster and other jackets in spinal curvature. The felt is first molded on lay figures of different sizes; then divided in front and provided with eyelets, so as to be laced up like a corset; indeed, it is but a corset of felt. Selecting a size as near as possible suited to the patient, the felt is put in an oven which is heated to 118° Fah. A higher temperature than this renders the felt brittle. With this, the material is entirely pliable, and if adjusted at once to the patient's trunk it accommodates itself very evenly and well to the distorted spine. Care must be taken to protect the body by a thick layer of cotton, else the heat of the jacket will be intolerable. I have seen quite a number of the shells applied, but I am doubtful of their success, except in cases of lateral curvature, or in such others as it may be desirable to put them off and on daily—as, for instance, in convalescent cases. I have used, for several years past, a Manilla paper and cotton cloth jacket, open and worn as a corset in the class of cases I have alluded to. Mr. Fisher tells me that he intends continuing his experiments with the felt, and when he has satisfied himself of its value he will report.

Mr. Balmanno Squire has constructed a telephone so small that it may be conveniently worn in the external auditory meatus. The wires leading from the ear to the other end of the instrument are so very fine as to be invisible except on close inspection. Mr. S. hopes that his little instrument may eventually be brought to be useful to deaf persons.

Mr. James Startin, one of the surgeons of St. John's Hospital for Diseases of the Skin, has, in the treatment of the troublesome redness and vascularity of surface which often remains after acne has been in one sense removed or cured, had marked success by touching the little indurated spots and venous plexuses with the acid nitrate of mercury. He applies it by means of a spun-glass brush, followed by the immediate use of bibulous or blotting paper. One or two applications usually suffice to effect a cure. No scar is left. The diseased capillaries soon become healthy. In certain cases the larger capillaries resist the mercury. Mr. S. then splits each engorged vesicle with a knife. If the hemorrhage following this little operation be troublesome, he compresses by means of a small iron ring, fixed in a handle, the bleeding vessel and touches its ends with a bit of nitrate of silver. This immediately arrests the bleeding. The stain left by the silver he subsequently removes by the application of a solution of the iodide of potassium.

Dr. Peter Eade, physician to the Norfolk Hospital, advocates the use of carbolic acid, either pure or in strong solution with glycerine, applied directly and abundantly to the diseased surfaces, in carbuncle, boils, pustules, festering ringworm, pustular acne, sycosis, and other festering as well as scrofulous sores. This practice has, as you know, been in general use in America for quite awhile past. The late Prof. Nott, of Mobile, first called attention to the value of carbolic acid injections made into carbuncles; and no one who has experienced the relief afforded by this treatment will ever apply any other. Dr. Nott thought it necessary to apply the acid in solution. Subsequent experience has shown that the acid is equally as efficacious if applied by means of ointments, while it can in this way be kept more continuously to the seat of the disease. But in whatever way used, if the acid be but in sufficient strength, it affords almost invariable and quick relief to the pain of either carbuncle, furuncle or pustule.

A correspondent, in a late number of the British Medical Journal, claims to have used hypodermic quinine successfully in checking night-sweats in a case of phthisis.

Dr. Gower, of University College Hospital, has been giving careful trial of the hemacytometer as a means of testing the value of certain agents in the treatment of anemia. In one case, where he found the percentage of red corpuscles forty-eight, a course of liquor ferri chloroxydi, continued for five weeks, gave the following weekly changes:—forty-eight, fifty-six, sixty-eight, eighty-five, and ninety-eight per cent. The improvement in the color of the blood did not keep pace with the increase of the corpuscles; from which Dr. G. infers that iron is capable of increasing the formation of blood cells, apart from an increase in the hemoglobin.

In a case of lymphoma of the neck, fifty-two denoted the percentage of corpuscles. Phosphorus was administered in doses of one-thirtieth of a grain *ter in die*, gradually increased to six daily doses. In one month corpuscles rose to sixty-six, in another month to seventy-four per cent. In still another case the corpuscles rose, under the same treatment, from fifty-two to eighty per cent.

Have you seen the notice given in a late number of the British Medical Journal, of Sayre on Spinal Disease and Spinal Curvature? The writer declares the plaster jacket to be "among the most valuable resources of practice," "an inestimable boon to humanity," and concludes his most cordial notice in the following generous, hearty way:

> "The practical genius, the generous energy, the apostolic fervor which Dr. Sayre devoted to its perfection and to the mission of popularizing its use on both continents, deserve to be remembered among the most admirable achievements of modern surgery. The book itself is interesting as a novel; it bears the stamp of a peculiar individuality;

it is written with a strong enthusiasm; and has exaggerations of style and manner which may readily be excused by all, while, by many to whom the author became known, they will be welcome as recalling the peculiar idioms and combined genius, humor, pathos, and ruggedness which made Dr. Sayre a striking and memorable figure in all the surgical assemblies in which he was seen during his visit to this country."

The news, my dear Parvin, of your elevation to the Presidency of the American Medical Association, the highest office in the gift of the profession, has given great pleasure here, not only to such of the London faculty as you know, but also to quite a number of American physicians who are visiting here. I need not tell you that it made me very happy. A gentleman was once enjoying himself greatly at a public banquet, when observing three very silent individuals who appeared to be in much distress, he asked who they were? He was told, "Oh, they are the speakers; the men who are to answer toasts, you know." You will experience for a season somewhat similar feelings to those of the banquet speakers. Now that you are President, you will be expected to give an inaugural. That's the fixed price of the boon, you know, and it is not the easiest thing in the world to do.

Always, my dear Parvin, faithfully yours,

D. W. YANDELL.

Reviews.

Physics of the Infectious Diseases—Comprehending a Discussion of Certain Physical Phenomena in Connection with the Acute Infectious Diseases. By C. A. LOGAN, A. M., M. D. Chicago: Jansen, McClurg and Co. 1878. 12mo., 212 pp. Price, $1.50.

In these days there are books and books. Some books indicate their contents and their purposes by their titles; but occasionally one meets with a book with an equivocal title, and even after a careful reading one is not certain what it means, nor clearly discerns its intent. The book under notice belongs to the latter class. It is a neat duodecimo of two hundred and twelve pages, divided into six parts, thirty-two chapters, and numerous but uncounted sub-headings. It has a dedication, a prefatory note, an introduction, a conclusion, and an addendum, and yet its purpose is obscure. In several places it hints at a great work by the author which is to follow, and this is repeated in the addendum as a parting word. Now, if the chief service of this book is as a herald and a forerunner of a more extensive work of the same character, and the readers of the present are expected to be advisers of the propriety of the issuing of that which is to come, one can conscientiously repeat to the author the laconic advice of the London Punch to young people who were about to get married, to-wit—*don't.*

This little book bristles with quotation-marks attached to single words, is adorned with many italics, brilliant with words in foreign languages, both dead and living, and studded with common words in unusual associations and unique combinations—all of which, taken together, have the double value of proclaiming the freshness of the author and his own sense of the importance of what he has to communicate.

The title "Physics of Infectious Diseases," does not convey an exact idea, but is perhaps appropriate for a book that wanders in a sciolistic way over a good part of the domain of natural science, applied and pure, with excursions into the realms of social science, chemistry, astronomy and medicine, finding its most congenial loiterings apparently in the groves of speculation.

Let us examine some selected samples of this publication, to the end that the reader may not be wholly dependent on the opinion of the reviewer for the means to make a safe estimate of the merits of its author's work. The opening paragraph of Part I is this, page 13:—"A class of diseases, variously denominated in later times zymotic, infectious, contagious, miasmatic, miasmatic-contagious, etc., etc., ravaged the earliest ages of which we have any authentic record; and have transmitted themselves, probably under the identical features and aspects which originally characterized them, through all the eventful centuries of the past, and now stand before our own generation as a monument of human mortality, which has escaped the changes of time upon the one hand, and, in great part, the assaults of advancing science upon the other." Rather a longeval, active, ingenious and defiant set of diseases these, that have existed always, erected themselves into a monument that has resisted the gnawing tooth of time and the undermining ways of art, and still stands horribly before us.

Speaking of winds, our author says, page 32:—"The southeast trade, which should carry the eastern clouds with which to fructify the whole South American continent, is met by an icy barrier, arresting the clouds in their flight, robbing them of every drop of their moisture and creating districts to the west of the great chain, rainless during the whole or a portion of each year." Not only is this part of South America, but all the earth beside, is "rainless during the whole or a *portion* of each year;" and one can but wonder where that icy barrier was going when it *met* the clouds; and, moreover, what is a cloud like, or what is left of it, when robbed "of every drop of moisture?"

Our author is strong on earthquakes. On page 36 we find: "Every one knows that the generally accepted theories of earthquakes rest upon the assumption of an internal molten condition of our globe, through which gases are generated, producing tension and vibration of the earth's crust, either through waves or distant impact. Whether or not this internal molten condition exists, we need not here inquire. So far as the theories themselves are concerned, the author is bound to believe, in view of his own observations, that they are entirely fallacious. . . . An earthquake, then, does not represent a mere vibration of the earth in consequence of percussion or impact at a distant point, but *directly caused by the actual transmission of a certain form of energy, from point to point covering the manifestation of the attendant phenomena.*"* We can all understand earthquakes now! The error of the old notion, and the truth of the new, are established by such evidence as this, found on page 38, where the author asserts that a man in Santiago "is awakened if asleep, a few minutes before a shock, and by those which are not preceded by a noise, as well as by those that are;" and that "a lady in the same city is able to predict violent shocks by peculiar sensations which she claims to experience in her feet." And again on page 51:—"Suddenly the *aurora australis* lit up the southern sky, from the pole to the cloud above mentioned, glimmering like the soft sheen of a midsummer's moon. 'We shall have a shake before morning,' said a friend to the writer, while looking at the beautiful phenomenon. Scarcely was the sentence completed when it came like a rush of lost spirits, clanking their chains in the wildness of despair." The force of this last sentence is somewhat marred by the fact that but few mortals have been favored to witness the "rush of lost spirits, clanking their chains in the wildness of despair." But it is a great consolation to know that these dreadful things need not continue always, for our author has a simple remedy for the abatement of earthquakes, announced in these words on page 54:—"Hence, the writer, when frequently asked in South America, if, in his belief, earthquakes were preventable, he invariably replied, that they could be pretty effectually prevented *by leveling down the Andes*, so that there would be no altitude above or near the snow-line."

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* Quotations from the book are all made literally, including italics, small caps, punctuation, etc.

Ozone is another thing on which our author dwells in love, and continues at length. He describes it by saying "its formation" is "dependent upon the condensation of oxygen into two-thirds of its former volume;" and then, after devoting pages to its great powers and saving virtues, fairly imbuing one with the idea that it is the supporter of all good, and the destroyer of all evil, he dashes our hopes by giving it this left-handed slap, page 48:—"It must be admitted, however, that up to this time, experiment has failed to establish fixed axioms regarding the precise relationship of ozone not only toward parasitic life in general, but also toward that remarkable class of diseases, capable of suddenly invading the citadel of health by unseen enemies and through unknown portals, and with giant hands laying it in ruins." These "giant hands" are powerful, and seem to shatter a magnificent "citadel" into awful ruins remorselessly.

Leaving, for the nonce, the wider fields of general physics, our author heads the first chapter of Part IV, "IDEAL FUNCTIONS OF THE NERVOUS SYSTEM," and the second paragraph is this, page 107:—"*The animal organism is built upon the central nervous system.* Each living molecule, as well as each of its atoms, however remote from the center, holds its vital structure only so long as it remains within the influence of that principle, which physiologists have variously denominated the 'vital force,' the 'nervous force,' etc. Every physical and vital operation of the system, from the raising of a finger to the fabrication of the most complex solid or fluid structure, is performed under the immediate influence of this mysterious agency." And a little further on this:—"And it is very evident, that just as the sun is the central reservoir of energy for the planetary system about him, so is the *central nervous axis the reservoir of that vital energy* through which our physical structure is maintained." And on next page this:—"If we go deeply into the minutiæ of generation, and tabulate the results of all our investigations as to the make-up of the fertilized germ, which is destined to expansion into the animal life, we shall find them expressed by a *curved line*—a very small line, to be sure; but it is the first marking of the future figure, from which, as a center, every other must be drawn in order to complete the proportions of the developed object." And on page 111 this:—"Animal existence resides, *de facto*, within the central nervous axis; and the first inspiration of the fetal being gives independent birth to a form of energy destined thenceforth to furnish the conditions of its own perpetuation within that particular economy, wherein the capital facts of life run in a circle without beginning or end, until the chain is broken by the hand of somatic death." And on page 115, after many fanciful statements, unsupported by authority, experiment or ratiocination, this:—"In all these statements the author feels that he does not 'theorize;' but is confident that he expresses many plain facts, a thousand proofs of which will at once suggest themselves to the observer, who has profited by study and experience." And the climax is capped in the next paragraph in this:—"Our propositions will now be summarized by the statement, that *animal life begins*, *resides in*, *and is terminated by the central nervous-axis*." Surely a writer who could promulge such a nerve-physiology as evidenced by the foregoing, in the face of our present knowledge, should be regarded as a monument of self-sufficiency. And the "*Essential Construction of the Animal System*" is comprehensively set forth in this sweeping declaration, page 189: "If the proposition, that man is only a 'two-legged animal without feathers,' can not be maintained in our day, yet his anatomical elements must be considered as essentially comprised of the *brain and spinal cord.* As has heretofore been stated in these pages, the animal life resides within those structures, or, more properly speaking, within that structure; as the organ, while consisting of different divisions and parts, is, nevertheless, possessed of all the attributes of anatomical and physiological unity. All other parts of the body are accessory to its material preservation and well being." Can anything be more simple, beautiful and complete?

In pathology our author is equally ecumenical, erroneous and unmeaning. Witness page 141:—"The organic molecule, though never having been handled like the inorganic, is, nevertheless, as much of a verity; and if we wish to deal intelligently with the maladies of the human body, we must approach it, in its atomic and molecular make-up, just as the chemist has done with the bodies falling under his scrutiny." "But just as certainly as that inorganic bodies are built up of molecules, which assume the relative situations *demanded by their polar forces*, and thus give form to the particular body, just so certainly is the organic body constructed *upon similar principles*." And on page 143:—"Every atom of the body is mapped out, so to speak, by its nervous energy, which it directly or indirectly receives from a special center of nerve-force." And on page 151:—"The infectious molecule, then, being a creature of energic mutation, carries with it a *representative polarity*, which gives to it the infecting—shall we call it the *fermentative*—power; which power inheres to the molecule until other forces break it up or rearrange its atoms."

The book proper concludes with this poetic view, page 209: "To him who may develop principles which shall be potent to substitute strength for weariness; to cast out pain and call back repose; to beckon sleep, unmixed with the thick-coming fancies of the opiates, to the staring eyes; to

> 'Raze out the written troubles of the brain;
> And with some sweet oblivious antidote
> Cleanse the stuff'd bosom of the perilous stuff,
> Which weighs upon the heart;'

there will be erected a monument higher than the steeple of St. Paul's, and more enduring than the Pyramids, which, 'doting with age, have forgotten the names of their founders.'" St. Paul's dome—it has no steeple—is three hundred and seventy-five feet high: the Pyramid of Cheops is over four thousand years old, and will probably endure yet more than ten times that period. The monument promised is, therefore, worth striving for!

Our author's "conclusion" concludes thus, page 211, alluding to the physician of the future:—"And while he sits at the bedside of his patient, and makes an ideal estimate of the sick man's vital power in *foot-pounds*, there need be nothing in his theory or in his practice, to conflict with the hope and belief in an immortal spirit of the earthly tabernacle, whose essence is of the Great Unknown." It is quite a consolation to have our author admit that the future is to have something belonging to the unknown.

Closing the volume with an "addendum," our author in it apologizes for his brevity, promising more fully to illustrate his views in a future, larger work, and intimating that he can be more scientifically accurate when it is needed. One can but regret that he did not see the need in the present case, as in that event our hopes for the future would have been more cheerful. As it stands, making an effort to estimate the scientific value of the book as a whole, one feels like placing its assumptions of thorough knowledge on an approximate equality with that portrayed by a passage in a recent publication, viz., "When Mr. Field's 'Village Dogmatist' was asked what produced rain, he leaned upon his cane and answered with an air of profound wisdom, that 'when the atmosphere and hemisphere came together, it causes the earth to sweat, and thereby produces rain.'"

Announcements in the book advertise us that its author was, for four years, United States Minister to Chili, and this non-professional service may account, in part at least, for some of the peculiarities of the book, as both diplomacy and Spanish American society give an impetus to the cultivation of grandiloquence, hyperbole and fustian. And the necessities of such an engagement may also signify why the matter of the volume is not abreast with the knowledge of the scientists and medical philosophers of the day; for it is obvious that one not especially trained to diplomatic life would, during his novicious four years representing the United States at a foreign court, have all his faculties occupied in the study of the essentials of his new sphere, and in enjoying its high privileges and fresh allurements, leaving but little time to devote to the progress of science and the advance of medicine.

J. F. H.

The Atlantic Islands as Resorts of Health and Pleasure. By S. G. W. BENJAMIN. Illustrated. New York: Harper and Bros. 1878. 274 pp.

This book might have its title changed to "a narrative of the author's visits to the healthy islands of the North Atlantic, with an appendix informing how to get to each island, the expense of the voyage and the cost of living after arrival, together with such statistics of inhabitants, health, game, fish and industries, as will meet the inquiries of all classes of travelers; and includes the author's views of, and expenses with, the people visited, their manners, customs, habits and laws." The title would then convey all the information that the reviewer would wish to present, except that the narrative part covers two hundred and fifty-five pages, is well written, instructive, entertaining, and handsomely illustrated, and the appendix of twenty pages is occupied with the directions for travel, and the places and prices of entertainments on the islands.

The work gives the foregoing particulars in regard to the Bermudas, Azores, Channel Islands, Madeira, Teneriffe, Newfoundland, Beellesle-en-Mer, Prince Edward's Island, Isle of Shoals, Cape Breton Island, and Isle of Wight.

The author is not a medical man, but he is a good traveler, a good writer, and has talked with doctors. J. F. H.

The Antagonism of Therapeutic Agents, and what it Teaches. By J. Milner Fothergill, M. D., Edinburgh. London: Macmillan and Co. 1878. 148 pp.

This essay, to which was awarded the Fothergillian Gold Medal of the Medical Society of London for 1878, is a work of which the author has a right to be proud, and for which the profession will be grateful. Unlike so many other prize essays, it fully deserves the prize awarded to it. The subject is one of great practical importance, which is just beginning to receive the attention it is entitled to, and this essay will do much toward bringing an interesting and rich field of observation prominently before the profession.

The first part of the essay is devoted to an experimental inquiry into the antagonism of various remedial agents, such as atropia and physostigma; strychnia and chloral hydrate; morphia and belladonna; morphia and theine caffeine, etc.; bromal hydrate and atropia; picrotoxine and chloral; aconite and digitalis; aconite and atropia; strychnia and aconite; atropia and pilocarpine, etc. This part of the essay is exceedingly well written; unincumbered by needless details and negative results, it is clear and succinct, and, unlike most of such records, is very interesting. It is needless to mention these experiments separately, as their practical results are given, and with them the general reader is most concerned.

The second chapter is devoted to a practical inquiry into the action of various remedial agents, and is most interesting. It presents, in a short space, not only the author's own views but also those of other leading experimenters and physicians.

Dr. Fothergill calls attention to the soothing effects of calabar in certain forms of insomnia, and during the periods of excitement in insane paralytics. The drug was found to calm the patients by its effects upon the circulation and respiration, while its action upon the spinal centers and the muscular system deprives them, to a great extent, of that muscular force which is a source of danger to themselves as well as to those restraining them. It also produced an effect in retarding the progress of the disease. The author believes that had not chloral been discovered, calabar bean would probably have been largely resorted to in acute mania and allied states.

Chloral hydrate.—A practical point, to which Dr. F. calls attention, is that the lethal dose of this agent is much affected by the surrounding temperature: it is less in cold than in warm weather; and a much larger dose was required to produce toxic results in rabbits, if the animals were laid before the fire or wrapped in cotton wool during deep chloral sleep. This suggests an important element in the treatment of chloral poisoning. The fact that chloral is most dangerous to the most intellectual is well emphasized; and physicians who practice in large cities will doubtless confirm the statement of Crichton Browne, that the energy of the action of chloral is in proportion to the development of the cerebral hemispheres.

Morphia.—The remarks on this drug are most practical and judicious. Perhaps the author speaks with too little qualification when he says that in bronchitis it is a very dangerous drug to use. When the larger bronchial tubes are alone affected, the drug can not only be used without danger but with positively good effect. In general and capillary bronchitis, however, the rule laid down by Dr. F. is certainly both safe and sound. The paralyzing effects of morphia upon respiration, and the stimulating effects of atropia upon the same function, are admirably brought out. Their similarity of action upon the reflex mechanism renders both applicable where cough is to be quieted, and their similarity of effect upon the bladder, are points often ignored. The combination of morphia and belladonna in phthisis is suggested. This practice has now been long the custom with many physicians, and the results obtained have been so satisfactory that Dr. Fothergill's explanation will be accepted with pleasure. Morphia produces copious perspiration; belladonna checks it, and thus a double object is gained by the administration of the two together.

Belladonna.—Experiments with this drug have shown, and clinical observation has confirmed, that when death is approaching from paralysis of respiration, induced by poisonous agents, belladonna restores the respiratory efforts, and so saves the animal from death. The author believes there must be a distinct connection between this fact and the well known beneficial effects of belladonna in various neurosal coughs. Its action in moderate doses is also to contract the peripheral arteries, and to stimulate the heart's action. Hence it is a valuable direct diuretic for increasing the bulk of urine. Belladonna plaster relieves palpitation of the heart, and this drug proves of great utility in aconite and calabar bean poisoning, showing that it has a decided influence upon the cardiac nervous centers. The toxic effects of morphia and belladonna upon the cerebral organs are mutually antidotal. The delirium caused by toxic doses of the latter is attributable to the high blood pressure induced by this agent. In opium sleep or coma, there is a low blood pressure. It is to be expected, then, that belladonna will maintain the action of the centers under large doses of morphia without interfering much with the effect of the latter upon the cerebrospinal centers.

Strychnia.—In addition to the well known effects of this drug the author calls attention to the fact that it has a powerful action upon respiration. It had been previously established that strychnia exerts an influence over chloral in toxic doses, and that chloral exercises even more powerful action in strychnia poisoning. Now, as the effects of chloral are well known, the author argues that if strychnia did not antagonize its effects upon the respiration as well as upon the heart, it could not have arrested death, and he asserts that strychnia is more potent as an antidote to aconite than digitalis, the latter not acting speedily enough upon the respiratory centers to prevent death from failure of respiration. In accordance with this view he recommends the use of strychnia in chronic bronchitis, with emphysema and a dilated right heart. The writer is able to confirm the results of the author with strychnia as a respiratory stimulant.

In the fourth chapter is considered "the action of drugs upon the circulation," and a large space is devoted to digitalis. This part of the work is characterized by the masterly treatment, as the reader would expect from the author of the Prize Essay on Digitalis, and of the work on Diseases of the Heart, which are familiar to every reading physician in this country.

In the fifth chapter the action of drugs upon respiration is treated of. The author notes the paralyzing effects of calabar bean upon the respiratory center, and that atropia counteracts these effects. The antagonistic actions of strychnia and chloral have already been mentioned, but are again alluded to, and he repeats that aconite is not only antagonized by strychnia, but by belladonna, which, besides being a respiratory stimulant, is also a stimulant to the heart, as pointed out by Graves and Harley.

The use of respiratory stimulants and depressants, and their combination under certain circumstances, is beautifully elaborated. In illustration, Dr. F. mentions the combination of morphia and atropia in phthisis pulmonalis, and he says a pill of one-third of a grain of morphia and one-thirtieth of a grain of atropia will relieve the hacking cough which prevents sleep, while the atropia prevents the profuse perspiration which ensues when morphia is given alone, and the action of the belladonna upon the respiratory center ought not to be overlooked. This practice is excellent, and none the less worth mentioning, although we have seen it employed for years.

Heat, we are told, stimulates the rythmically discharging centers of respiration and circulation. Several interesting facts are presented in support of this view, and the application to treatment of disease is both practical and judicious.

The sixth chapter is on the practical use of the antagonism of drugs in actual poisoning. The author first relates several cases of opium and belladonna poisoning, in which the antagonism of these drugs was utilized and the patients cured. Cases of the same kind are now multiplying everywhere, and the reviewer has himself seen some of striking interest and eminently successful.

Next, cases of strychnia poisoning are noted, in which calabar bean or bromide of potassium was given as an antidote, and resulted in the recovery of the patient.

These cases, as Dr. F. says, furnish the final corroboration requisite to demonstrate the antagonism of drugs within the organism, and to show how research upon the lower animals can be utilized for the needs of human beings.

In the seventh chapter is considered the use of the antagonism of drugs in ordinary practice; it is, in fact, a recapitulation of what has already been gone over in the first portion of the essay, and is fully equal to it.

This essay is one of the most important publications in therapeutics which have been chronicled in this journal for a long time. It places within reach of the busy practitioner a clear,. concise and practical exhibit of great therapeutic principles and facts which no physician can afford to be ignorant of, and which has never before been placed in such easily accessible form. J. A. O.

Injuries of the Eye and their Medico-Legal Aspect. By FERDINAND VON ARLT, M. D., Professor of Ophthalmology in the University of Vienna. Translated by CHARLES S. TURNBULL, M. D., Surgeon to the Eye and Ear Department, Howard Hospital, etc. Philadelphia: Claxton, Remsen and Haffelfinger. 1878. 12mo., 190 pp.

In this little book the whole subject is embraced under three groups: First—Injuries produced by sudden compression or concussion of the eye. Second—Injuries produced by the entrance of a foreign body not acting chemically. Third—Scalds and corrosions of the eye-ball. Each injury is considered separately as to diagnosis, prognosis, and therapeutics. Under the last section, attention is called to the fact that bodies which continue their corroding action, as different caustics, should be removed as rapidly as possible by mechanical means and not by water, which would only intensify and spread their action over a larger area. The treatment of an injured eye by enucleation on account of a sympathetic ophthalmia, is an important subject which we think the writer should have presented more fully, not for the benefit of the specialist, but for the general surgeon. We cordially recommend the book to the general practitioner, but we imagine it would be of little value to Dr. Turnbull, or any other skilled oculist, in aiding them as medico-legal experts.

Clinic of the Month.

Pyrexia of Enteric Fever, Influence of Quinia and Baths upon.—In the course of an article upon this subject, London Practitioner, July, the author, Dr. J. Greig Smith, observes as follows:

With the view of obtaining exact estimates of the antipyretic influence of quinia and the bath, careful records were taken of the effects of forty baths and forty doses of quinia consecutively exhibited, in cases of enteric fever. These are presented as individual experiments, whose collective evidence will show the therapeutic value of the agents in the matter of temperature reduction; they are not intended to show the effect of the antipyretic treatment on the mortality of the fever. The points particularly noted in each experiment were the following:

1. The temperature of the patient at the moment treatment by bath or quinia was adopted.
2. The fall in degrees directly following the treatment.
3. The length of time the temperature took to fall to its lowest point.
4. The height to which the temperature rose directly after this fall.
5. The length of time, reckoning from the commencement of the treatment, which the temperature took to reach this reactionary rise; in other words, the period of depressed temperature.
6. The temperature of the bath and the length of time during which the patient was immersed; and, to correspond with this, the dose of quinia.
7. The time that elapsed till the next call for antipyretic treatment.

To get trustworthy utterances on these points it is evident that temperatures must be very frequently registered. I need enter into no further details than to state that during critical and turning points in the curves the temperature was taken every five or ten minutes, and during the continuous rise and fall every half hour or every hour after quinia, sometimes every two hours. The individual experiments being recorded as above, the following are the average figures got from forty doses of quinia and forty baths:

	Bath.	Quinia.
1. Temp. for which treatment adopted......	104.75°	104.70°
2. Fall in degrees	6.05°	5.74°
3. Time in falling	32 min.	11.8 hours.
4. Height of reactionary rise	103.36°	103.18°
5. Time to rise or period of depressed temp.	6.1 hours	23 hours.
6. Vigor of therapeutic means employed	water at 69.6° for 14 minutes	35 grs. about.
7. Lapse of time till next call for treatment	11 hrs. about	42 hrs. about.

That is to say, in the case of a patient having a temperature of 104.7° Fahr., we should expect the effect of a bath and of a dose of quinia to be as follows:—After immersion in a bath of 70° Fahr. for fourteen minutes, the temperature in eighteen minutes more falls six degrees; thereafter it commences to rise, and six hours after the bath the temperature reaches 103.4° Fahr. After a dose of quinia, averaging about thirty-five grains for an adult, the temperature in 11.8 hours falls 5.7° Fahr.; it then commences to rise, and twenty-three hours after the administration of the drug reaches 103.2° Fahr. Another bath will probably be wanted in about eleven hours, and another dose of quinia in forty-two hours; but the variations are here too great to give a trustworthy average.

It will thus be seen that the salient points of difference between the effects of quinia and the bath have reference to the length of time the temperature takes to fall, and the period during which it remains depressed. The depth of the fall, and the height of the secondary rise are practically the same. The relative amounts of difference may be thus generally expressed. Given a temperature of nearly 105° F. we get after—

	Bath.	Quinia.
Temperature under 104° for	6 hours	21 hours.
Temperature under 103° for	5½ hours	18 hours.
Temperature under 102° for	4 hours	14 hours.
Temperature under 101° for	3 hours	10 hours.
Temperature under 100° for	1¾ hours	5 hours.

That is to say, the period of depressed temperature is three times longer after quinia than after the bath.

We thus arrive at some conclusions which may help to guide us in practice. The broadest therapeutic effects of a bath being a sudden fall of temperature, a speedy subsequent rise, and a soothing influence on the system, the indications for its use are, with similar broadness, a sudden high temperature not likely to be persistent, and the presence of sleeplessness or delirium. Quinia, giving a slow fall (the fall seldom begins till an hour after administration), a prolonged depression of temperature with usually some improvement in the heart's action, is indicated in cases of continued high temperature where the heart is acting feebly.

It is difficult, in general language, to go further than this. In actual practice, with definite concrete symptoms to guide us, it will be found more easy to decide on the method to be made use of, and the proper season to employ it.

An important point to decide upon is the height to which a temperature may be permitted to rise before antipyretic treatment is adopted. In the presence of the indefinite and ever-changing combinations of symptoms which are sure to exist in any case of enteric, it is unwise to fix on any given temperature at which treatment is to be begun.

In addition to the temperature we may derive some guidance from circumstances such as the following:

1. *Age.*—In children, though the pyrexia is usually more intense than in adults, its importance as a symptom is not so great. In children, also, the rises are more sudden and less prolonged than in adults, and there is more probability of a high temperature falling rapidly of its own accord. Antipyretic treatment, therefore, need not be so energetic in children for the double reason that the pyrexia is less dangerous and likely to be less persistent than in adults.

2. *Duration of the Pyrexia.*—The length of time for which a temperature remains over a given point must be considered as well as the height to which it attains. In the absence of proof to the contrary, we are entitled to assume that the degenerative changes accompanying pyrexia commence soon after the first departure from normal, and increase *pari passû*, with its elevation. We should expect, for instance, that a pyrexia of about 103.5° Fahr., lasting for five or six hours, would be as injùrious as one of 106° Fahr. for half an hour. If we regard degeneration of the cardiac fiber as the test of the mischief, microscopic investigation would seem to bear this out. In a case of prolonged fever, where the temperature had never passed 103.5°, but had continued over long periods near this point, a condition of degeneration of cardiac muscle was found greater than in a case (of cerebral embolism) where the temperature quickly reached 108°, and was as quickly brought down. An equally suggestive comparison was made in a case of pelvic cellulitis, where there were high evening rises of short duration, with slight granular changes in the heart muscle. There seems, in fact, to be no fixed point at which degeneration commences.

Our treatment must vary accordingly. If the chart curve for a day or two previously has shown sharp peaks, we are justified in waiting for a short time to see if a high temperature will not fall of its own accord. But if the peaks have been broad, if the temperature has shown a tendency to continue high for several hours, we are not justified in waiting for the natural fall. We have nothing here to guide us but the previous course of the temperature, and, with less reliability, the age of the patient.

3. *The Stage of the Disease.*—Towards the termination of the fever the temperature curves are usually sharper; there is less probability of a temperature continuing long very high, and consequently less urgent demand for treatment. This rule, of course, must be qualified according to the previous course of the disease, and the condition of the patient. The patient's heart may be in very feeble condition from continued

or excessive pyrexia in the early part of the disease, and every elevation in the latter end may tell with redoubled force. In such a case extreme care must be taken not to let a temperature continue long at abnormal height.

In the early stages the rule is more simple. Prognosis as to the severity of a case of enteric is almost proverbially uncertain, and we must always treat it in the beginning as if it were to be severe in the end. In other words, we must be careful that the baneful effects of high temperature be not in the end one of the factors in prolonging convalescence or increasing danger.

4. *The State of the Patient*, or the manner in which he behaves under the fever, is perhaps the most important consideration of all. It is in perfect consistence with our knowledge of thermometry during health that there should be varying reactions as to temperature in disease; and it is equally intelligible that a given height of temperature should produce different amounts of evil in different individuals. It is undoubtedly the case that the worst, and most commonly fatal, cases are usually those that have the highest temperature; and, thus far, our conduct is plainly enough prescribed. But seeing that in a goodly number of cases the subjective results of the fever are out of proportion to the objective indications of heat, we may not abide by the thermometric indications alone. The actual extent of the evil produced, as much as the supposed potentiality of the cause, must guide us in our treatment. That is to say, though systematic treatment is always to be carried out only in cases of severe pyrexia, a moderately high degree of fever is not to be let alone if the symptoms show that it is doing the patient much harm.

In the practical carrying out of the treatment another consideration arises for our guidance. This is a sort of tolerance which we see both of quinia and the bath. With the bath the demand is for increased frequency rather than for increased cold. With 'quinia the demand is rather for increase of dose. Thus if a patient gets two baths on one day, he will probably, on the same principles of treatment, require three or four next day, and so on. And with quinia, if thirty-five grains have reduced the temperature six degrees on the first administration, forty grains will probably be wanted to produce the same effect on the second. It is seldom, however, that we have to go beyond forty-five grains at one dose; and it is very improbable that there will be any call for antipyretic treatment for twenty-four hours after the administration of quinia.

In conclusion, it is urged that the pyrexia of enteric may be better treated by quinia and the bath, than by the bath alone. Where everything is favorable, and where the demands for treatment are not more frequent than twice or thrice a day, we may rest content with cold bathing. With the aid of quinia we may dispense with the heroism of four hundred baths in the course of one case of enteric, and we need not let a pyrexia remain untreated when failing heart's action or complications such as pleurisy, peritonitis, hemorrhage, forbid the bath.

If we have formed an honest estimate of the therapeutic value of both methods, and intelligently applied our knowledge in practice, making the one to supply the defects of the other, and both to work their best towards the common end, it will be seldom indeed that we meet with a case of enteric fever whose pyrexia can not be kept under control.

Ergotine in Neuralgia.—Dissolve two and a half to three grains of ergotine in glycerine or distilled water, and inject hypodermically. There is a burning sensation, more or less intense, which disappears within half an hour, if the puncture is covered with compresses dipped in cold water. Save in very rare cases, it is followed by neither abscess nor erysipelas. One injection, or at the most two, will, in the majority of cases, banish the neuralgic pain; with the view, however, of preventing relapses, as many as six injections may be given. In tic douloureux the results have been most favorable, while in sciatica they have often failed. (*L'Union Médicale;* Dublin Journal of Medical Science.)

STRENGTH OF DISINFECTING SOLUTIONS.—In an article upon Disinfectants—Druggists' Circular and Chemical Gazette—the strength of disinfecting solutions is thus given. The quantities sufficient are about as follows:

Hyponitrous acid, recommended by Carmichael Smith in 1785, is a reliable disinfectant, but very dangerous. A room of 30 to 40 cubic meters (about 1,000 to 1,400 cubic feet) requires the quantity of gas evolved from 1,500 grams (52 ounces) of nitric acid, 300 grams (10 ounces) of copper turnings, and 2 liters (4 pints) of water. Expose for forty-eight hours.

Carbolic acid, mixed with water in the proportion of one part of the crude acid to thirty parts, when needed for sprinkling. More convenient is the dry mixture of one of acid and three of sawdust or sand. The carbolate of lime of commerce is a very handy although not very strong preparation. It is quite harmless, and its effects are continuous. For the daily stools of four persons, about half a pint of the above solution will be sufficient, or a teaspoonful of carbolate of lime daily for each person. The rule is to add more when the smell of carbolic acid has disappeared. Under this head belongs Dr. Squibb's plan of building a wood fire in the cellar of tenement houses, and smoking the house as a pork packer smokes hams. Carbolate of lime must not be associated with chloride of lime, as they are antagonistic.

Chlorine was recommended in 1773 by Guyton de Morveau. It is best applied in the form of chloride of lime; with about twelve per cent. of hydrochloric acid.

Permanganate of potassa is very easily decomposed, and gives up its oxygen to all organic matter whether hurtful or not; hence the best way to employ it is to act upon small quantities of organic matter at a time, and to use but little more than necessary to destroy the smell, otherwise an enormous quantity might unnecessarily be used. One part of permanganate to one hundred parts of water is a good proportion. It is not an antiseptic, and consequently does not prevent decay from recommencing. Taking all together, the usefulness of permanganates is very limited. Gun-cotton moistened with a solution of permanganate is the best dressing devised for putrid, gangrenous wounds. It is a good purifier of water for drinking purposes.

Sulphate of iron is one of the cheapest and handiest disinfectants. A solution of five per cent. will be about strong enough for most purposes. For stools, about two ounces of the salt for one person each day are sufficient. In the basic state it is more efficient and economical than as protosalt.

Chloralum, introduced by Gamgee about 1869, is a desirable disinfectant, being harmless and devoid of smell.

Hydrated chloride of aluminum can be prepared by mixing solutions of sulphate of alumina and chloride of calcium; sulphate of lime will be precipitated, and the supernatant solution can either be used as such, or evaporated at a very gentle heat. Heat too strong decomposes it. Both the component salts being by-products, chloralum need not cost much; made as above, it is infinitely stronger and more reliable than most of the commercial trash sold under that name.

Heat is a good disinfectant, since none of the lower organisms can resist 265° F. The effect of heat on textile fabrics is as follows:—They can bear 250° F., unless the heat is prolonged for several hours. A dry heat of 300° F. slightly chars cotton fabrics; at 400° F. the goods are colored dark brown; at 500° F. gaseous hydrocarbons are formed; at 600° F. all vegetable and animal tissues become converted into charcoal. Aided by a jet of steam, 250° F. will, for practical purposes, be sufficient, without destroying or injuring the texture.

INTRA-UTERINE FRACTURE OF THE FEMUR.—M. Theophilus Anger presented to the *Société de Clinique*, a femur taken from an infant born at eight months and dying two days after, which was fractured in the body, or rather a separation of the epiphysis at the base of the great trochanter. The mother had become syphilitic the fourth month of pregnancy, and eight days before delivery had fallen upon the abdomen. (*Annales de Gynécologie.*)

Notes and Queries.

Too Many Medicines.—The motto, as we remember it, of a well known and influential political newspaper published at Washington City many years ago, was "The world is governed too much." Possibly one day a sanitary journal may make its motto, The world is drugged too much, and bearing this banner wage a successful war against one of the monstrous evils of the times.

When we consider the great number and variety of proprietary medicines in this country—pills, powders, plasters, liniments, liquors, lozenges, ointments, et cetera—used, the manufacturers, we had almost written malefactors, soon becoming millionaires; then add to this use, the supposed therapeutic agents employed in domestic practice, the home prescriptions; and finally concluding the account with the various medicines used by the profession, we have an amount that is simply enormous.

Extra professional use of medicines, of course doctors can do little toward restricting. Many people will continue to believe they know more about diseases and medicines than those who have made them a life-long study, and so drug or dose all who will permit, or are compelled to submit to, the cruelty of their tender mercies; and the race of quack-medicine vendors will live as long as popular credulity and ignorance.

But is there no intra-professional limitation of the number of medicines and variety of medicinal preparations that can be accomplished? The tendency of most physicians is, with the increase of years, to diminish the number of therapeutic agents. Many of the medicines that they tried in the earlier period of their professional life they set no great value upon, some they consider positively worthless, and new candidates for their favor are regarded with a healthy skepticism, for the time treated with only a distant recognition, while a few old remedies, tried and true, are looked upon with a faith alike affectionate and almost implicit. That soldier is as a rule more efficient in battle who has thoroughly learned the use of one or two weapons, than he who practices with forty or fifty. The man of one book an ancient adage warns us to beware of, probably because such a man is invincible on his peculiar territory. Monodynamic men, as Richter termed them, men of a single talent, are rarely misapprehended. So too in our therapeutic experience, if we use but few remedies and these singly, we rarely misinterpret results.

It was the evidence of ignorant inexperience, or of ignorant skepticism, given by the physician who, when asked why he put so many medicines in a prescription, replied "That the disease may take whichever it likes." Lord Bacon's view of polypharmacy was much wiser. This great man, who uttered many a truth which would be of value to practical medicine to-day, observed, "For variety of medicines is the child of ignorance; and if it be true according to the proverb, that 'many dishes have made many diseases,' it is not less true that many medicines have made few cures."

The multiplicity of medicines and of medicinal preparations hinders progress in therapeutics. Rational inductions can only be made when the facts classified are similar; dissimilars brought together surely lead to error. But how can there be similars when so many different therapeutic agents are used by different observers? Moreover, how can there be any certain facts deduced from a case where the patient is given possibly a dozen different medicines in twenty-four hours!

A universal pharmacopœia is one of the imperative needs of the professional world; the general adoption of the metric system — of which our friend and contributor, Dr. Wigglesworth, is the devoted apostle—will be a long stride towards such a pharmacopœia. Then let practitioners abide by such pharmacopœia, and new life and light will come to therapeutic science.

NATIONAL MICROSCOPICAL CONGRESS.—A number of the most prominent workers in histology, phytotomy, and the microscopical societies of the country generally, propose holding a National Convention at Indianapolis, beginning on the 14th of August, and extending over a period of several days. The objects will be to organize a National Association, and to read and discuss subjects directly pertaining to microscopy. This is the first movement toward a national association of this character, and we are informed that the work has gone so far that success is assured. The association will certainly hold open doors to all who are engaged in scientific pursuits which require the aid of the microscope for development and study. It seems to us that the medical profession should have large claims in an association of this kind, and the doctors of Kentucky and Indiana especially should take an active part, and avail themselves of the opportunities that will be offered here, for acquiring practical knowledge (that could be acquired in no other way), with regard to the best forms of instrument for clinical observation and professional study.

CONSOLIDATION OF THE TWO INDIANAPOLIS MEDICAL COLLEGES.—The profession of Indiana will doubtless be gratified to learn that the College of Physicians and Surgeons of Indiana and the Indiana Medical College have been united under the name of the Medical College of Indiana, being the medical department of Butler University. The University is a rich and powerful corporation, and guided by the large and liberal views of the President of its Board of Trustees, Dr. P. H. Jameson, will ultimately make its medical department one of the best equipped and efficient schools in the country. One of the wise steps taken in the organization of the medical department of the University, was placing the school under the immediate control of trustees all belonging to the medical profession, some of them among the most prominent and best known physicians of the state: Dr. J. M. Kitchen is President.

ABDOMINAL OVOTOMY.—We call the attention of our readers to the following note from Dr. R. P. Harris:

713 LOCUST STREET, PHILADELPHIA, MAY 10, 1878.

Dear Doctor:—It being highly important to determine what has been the proportionate success in cases of labor where the abdomen has been opened to remove a fetus escaped from the uterus by a rupture, I have instituted an inquiry in the hope of being able to collect the American cases of gastrotomy—puerperal laparotomy—and thus determine the value of the operation as a means of saving life. Can you obtain for me, in your state or vicinity, any records of cases, stating the age, color, locality, cause of rupture, number of children born previously, time between rupture and operation, result to woman and to child, name of operator, condition of woman at time of operation—was the uterus sewed up?

Yours very respectfully, ROBERT P. HARRIS, M. D.

THE OBSTETRIC GAZETTE.—The first number of the Obstetric Gazette, a monthly journal devoted to Obstetrics and Diseases of Women and Children, edited and published by Dr. Edward B. Stevens, Lebanon, Ohio, has appeared. Dr. Stevens is a veteran in the editorial ranks, is well known by the profession of the whole country, and will make such a journal that every general practitioner can not afford to do without, while of course all who are especially interested in any of the three departments to which it is devoted will at once subscribe for it.

STATISTICS OF PLACENTA PREVIA.—Dr. E. W. King, Galena, Floyd county, Ind., desires to present to the Indiana State Medical Society, at its next annual meeting, a collection of all the cases of placenta previa occurring in Indiana. It is to be hoped that all members of the profession having had such cases will make them known to the doctor, assisting him in a work that he has the ability and the industry to make of great practical value.

Nitrite of Amyl in Tinnitus Aurium.—Dr. Michael, of Hamburg, has published a *résumé* of twenty-seven cases of tinnitus aurium treated by him with nitrite of amyl. In nineteen of these he has obtained decided success. Two to five drops should be inhaled at a time. The inhalation was continued while the usual symptoms lasted—redness of the face, injection of the vessels of the eye—and stopped when vertigo appeared. With all the patients who were benefited, the tinnitus increased during the period of inhalation. With the disappearance of the redness from the face it diminished and became less than it was before the inhalation. In some cases the improvement only lasted an hour, in others several weeks, but generally it continued from two to ten days. The effect of a second inhalation was more marked than that of the first, provided that it was not repeated too soon. There should be an interval of two days at least. Of course, inhalations would not be applicable in cases of acute local catarrh, nor where the tinnitus was of mechanical origin. (*L'Union Médicale.*)

Electrolysis in Cervical Stricture.—Dr. Le Blond, *Annales de Gynécologie*, concludes a paper on this subject as follows:—1. Enlargement of the cervical canal by electrolysis is possible; 2. The resulting cicatrix has not marked retractile character; 3. Electrolysis ought to be substituted, in very many cases, for division of the neck by cutting instruments.

A Sin of Omission, if not of Commission.—In the last number of our journal, we referred most favorably to the printed order of exercises prepared by Dr. Rochester and his colleagues for the Buffalo meeting of the American Medical Association, forgetting at the time that there was such an order prepared by Dr. Davis for the Chicago meeting; and also one at the Detroit meeting, for which order the Association was indebted to Dr. Brodie. It is needless to say that we regret, in doing full justice to Dr. Rochester, the slightest injustice was done to others.

MONTAIGNE'S OPINION OF PHYSIC.—For my part, I think of physic as much good or ill as any would have me: for, thanks be to God, we have no traffic together. I am of a quite contrary humor to other men, for I always despise it; and when I am sick, instead of recanting or entering into composition with it, I begin yet more to hate and fear it, telling those who importune me to take physic that they must at least give me time to recover my health and strength that I may be the better able to support and encounter the danger and the violence of the potion. I let nature work, supposing her to be sufficiently armed with teeth and claws to defend herself when attacked.

THE LANCET AND CLINIC CONSOLIDATED.—The union of these well known medical journals of Cincinnati has taken place since our last issue. The new journal is handsomely printed, well filled with good original and selected matter, is issued weekly, and as long as it keeps its present high standard deserves and must obtain large success.

DR. DAVID W. YANDELL.—It will gratify Dr. Yandell's many friends to know that he will return by the middle of this month, and with health greatly improved.

TO CONTRIBUTORS.—Papers have been received from Drs. Thornberry, King and Corey.

THE AMERICAN PRACTITIONER.

SEPTEMBER, 1878.

> Certainly it is excellent discipline for an author to feel that he must say all that he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than anything else.—RUSKIN.

Original Communications.

TRUE AND FALSE EXPERTS.

BY J. W. GORDON, M. D., LL. D.

The subject of expert testimony has recently been largely discussed, both by physicians and lawyers. The bulk of its literature is constantly increasing; nor can I say that its great importance does not entitle it to all the consideration it has received. It touches the highest and most delicate interests of individuals and society; and enters into every branch of judicial investigation. The testimony of the learned can not be dispensed with, without impairing the fairness and destroying the completeness of the administration of justice; for it is often the only source from which it is possible to derive the light in which the true character of a transaction can be seen and determined. Its general discussion in *The Practitioner* would be out of place. Nevertheless, a few observations upon that department of it which is most prominently associated in the public mind with medical experts, will, it is believed, be regarded as neither out of time nor place in its pages.

The physician is first a man like other men. He is born, or becomes, a citizen. Both as a man and citizen, he has rights; and, as the price of his rights, is bound to the performance of duties. By the neglect or violation of his duties, he may forfeit and lose his rights. The rights of others are the measure of his duties with respect to them. His rights are the measure of the duties of others with respect to him. Justice requires that he shall dutifully respect the rights of others in all his acts; and that they shall respect his in all theirs. As men and citizens we are social; and rights and duties, as the subjects of justice, have no existence out of society. Indeed, they are inconceivable. The society into which a man voluntarily enters, or is born, or brought when too young to choose, acquires certain rights with respect to him as soon as he enters it, and retains them as long as he remains in it. He becomes bound to render it certain duties in consideration of the rights which he acquires by becoming a member of it; and which in duty it accords and guarantees to him. Here again, as between mere individuals, rights and duties are reciprocal and mutual between the individual and the society to which he belongs. They mutually possess each other, so far as this reciprocity extends. Among the rights of society in the individual, is the right to require him to appear before its tribunals and testify touching any matters of fact important to the right decision of any controversy therein, whether it be between two or more persons in relation to merely personal interests, or between an individual and society at large, and involving the protection of the public by the repression and punishment of crimes. This right is absolute in society; and its entire force is pledged, in the organism known as the state, to give it expression and validity. Of course the duty on the part of each of its members to cheerfully accord this social right is correspondent. All persons stand equal, under a just government, in respect to the duty to appear in the courts in answer to their summons, and testify to any facts which they may have witnessed, in any private or public controversy going on there. Professional men stand upon the same platform in this respect as those who are not professional. There is no difference between them. The one as well as the other may be attached and punished for contempt of the public authority, if he disobey the summons. Whoever stands present, and witnesses a contract between two citizens, or sees a trespass committed, or hears a slander spoken, may be compelled to appear in court and testify to what he knows about the one or the other. But in such cases, as the controversy relates to a private interest, the law prescribes a small fee to be paid by the party requiring his testimony; and gives him, if he be successful in the litigation, a right to judgment against his adversary for it. And this is manifestly just; for it is but fair to require him who has done the wrong which makes the action necessary, or who has wrongfully brought the action against one who has done no wrong, to pay the expenses arising from the contest. But the law is the same in requiring any person who may stand present when a public offense is committed, to appear and testify to all that he may know touching its commission, or in any wise calculated to throw light upon it. Here, again, the right of society, and the duty of the citizen are absolute. Whenever society requires, the citizen must perform the duty; and if he fail therein, he is guilty of a contempt of public authority, and justly subject to be punished therefor. Professional men are, in this respect, on the same jural basis with others—neither better nor worse. If, in one of these criminal prosecutions, the state is successful, judgment is rendered against the offender for whatever penalty the court or jury affix to his crime; and for the costs of the prosecution, among which are reckoned the ordinary fees of the state's witnesses. If the convict pays, the witnesses receive them; if, however, he has no resources wherewith to pay, the witnesses receive nothing, for the state pays none of her ordinary witnesses in such cases. The interest which the people have in the protection of society by the conviction and punishment of criminals, is regarded as an equivalent for the services rendered by witnesses. It is true, that in the cases of poor persons who are unable to pay the cost of travel from their homes to court, the court may, and frequently does, make an allowance of such expenses; it is not, however, made as an equivalent for services rendered, but only as a necessary means of enforcing the laws,—not for the advantage of the witness, but of the state. To this extent all witnesses are equal.

The duty of every witness, in court, is to speak the truth simply and plainly. How far and how well he will do so, in any given case, depends upon many causes, both intellectual and moral. All these become the proper subjects of investigation and animadversion in the course of the litigation in which he testifies. It is both the right and the duty of all persons engaged in the controversy, to examine and closely scrutinize every element of the testimony of each witness; to ask for, and, if possible, ascertain its relations to every other; and to the whole body of testimony in the case; and fairly to consider and weigh it by itself and with the whole. If it be the offspring of any sinister motive, or deflected from the straight line of truth thereby, then that motive should be severely investigated, that its entire influence upon the witness and his testimony may be determined. The true witness is never conscious of the presence or influence of such a motive. The false witness is always more or less so. There are so many sources of falsehood in what men sincerely say, in relation to facts that they claim to have observed, that volumes have been written to explain them; and still there is room for others. This is no place to discuss them; but it is proper to call attention to them as the foundation of what remains to be said on the subject of *True and False Experts.* Given a true man, and he will always be a true witness. Given a true man, and he will always be a true expert. The title of this paper, therefore, involves a solecism. There is properly no such thing as a *false expert*, in the sense of our science. This was foreseen when the title was chosen. The falsehood is in the man, not in the attribute of expertness. In that respect he is either an *expert*, or he is *not an expert.* If he is not, and pretends to be, he is, so far, a false pretense and a lie. If he is, but, in the pretended exercise of his function as an expert, contradicts, either in his statement of facts or conclusions, his science or experience, he is simply a perjured witness. In either case, the flaw is in the man. It lies deeper, and is more pervading than his special character, real or assumed. The man is a criminal merely; and deserves the punishment and infamy of perjury.

It has often been my painful duty to be compelled to witness the audacious commission of perjury, by men who were, or pretended to be, experts in medical science. A great many years ago I heard a really learned physician testify touching a most atrocious murder, so as to satisfy the court that the deceased had probably died by her own hand, instead of that of the prisoner. A great body of evidence, in the case, went to prove that deceased had been smothered to death in her bed; but her throat was found to be cut clear across to the bone, and she was found lying in the middle of the floor. For the state, it was contended that her throat had been cut, after she had been smothered, in order to give the prisoner ground for the defense that she had committed suicide. In support of the state's view, was urged the manner in which the blood had escaped from the vessels of the neck. Both the common carotids had been severed; but the entire person of the deceased, and the room and furniture in it, showed no sign of any jet or spirt of blood from either of them. On the contrary, the blood had simply flowed from the wound where she lay, and run along the floor, touching nothing else. Besides, so far as the evidence tended to disclose its quality, it was not arterial but venous. Upon these facts, the prosecution rested, confident of a conviction. But the medical testimony soon put an end to this confidence. The learned doctor was asked to account for the absence of any jets of blood, or other evidence of arterial action; and did so, by saying that, the evidence clearly disclosed that, along with the common carotids, the pneumogastric nerve was also severed; that, by reason of this lesion, the lungs at once ceased to perform their function; that the blood, no longer being decarbonized, acted as a poison upon, and paralyzed the brain, which produced a cessation of the heart's action, and so left it impossible to have any arterial jets of blood in the case. The case was given up at once, the learned judge directing the jury, over the protest of the prosecuting attorney, to find the prisoner not guilty, in their box. Timidly, indeed, but audibly and firmly, nevertheless, was it suggested to his honor that, it ought to be shown how the carbonized blood reached the brain to paralyze it; and, if it was sent thither by way of the occipital arteries by the heart's action, whether the same stroke that sent it, must not also have sent a corresponding stream by the way of the severed carotids? The suggestion passed unheeded. The false man, the false witness, the *false expert*, had defeated and dishonored justice in her own temple.

More recently, in one of our courts, in the capital of Indiana, has a false man, brought hither from another state, assuming the character of an expert, as the only means of hiding *his* ignorance, and shielding malpractice from deserved condemnation, supplemented the anatomy of the pelvis of the human female with numerous muscles, nerves and ligaments, that have no existence in fact; and the false man, the false witness, the *false expert*, as promptly invented names as structures—giving "to airy nothing a local habitation and a name." In the latter, as in the former case, the falsehood was successful; but in a different way. It was by the very definiteness of the falsehood that the first triumphed; while the last reached his object by mere confusion and uncertainty. In both cases there was falsehood; but, in each, so far as the testimony was false, it is respectfully submitted, it was not expert testimony at all; and that the witness, though false as man and as witness, did not become thereby a *false expert.* He could not have had experience of the lie he invented and retailed under oath, whether it was concerning the existence of an imaginary muscle and its name and function; or a mere conclusion touching the order of phenomena in death resulting from a severed throat.

It has been already seen that all owe the state, as ancillary to its function of doing justice, the truth that is in them touching subjects of judicial inquiry and decision. Beyond this, the state has no claim upon any one. It can not, without compensation, compel any one to acquire a knowledge of facts; or study a case, in order to deduce from it a scientific conclusion, that he may so become able to testify, either in a civil or criminal action, to such facts or conclusion, and thereby so to enlighten its tribunals in regard to the same, as to enable them rightly to decide it. No man's particular services can be required without just compensation. In creating the state, the people have imposed this express limitation upon its power; and our courts are beginning to apply it, in the protection of professional men, both in making scientific investigations, and in delivering scientific opinions, for the advancement of public justice. It was held, therefore, before the statute settled it, that when a post mortem examination becomes necessary to the ends of justice, and the officer charged with the duty of having it made, procured a doctor to make it, the doctor was entitled to compensation for the service. (Gaston v. The Board of Comm'rs, etc., 3 Ind. 397.) And the Supreme Court of Indiana have more recently held, "that physicians and surgeons, whose opinions are valuable to them as a source of their income and livelihood, can not be compelled to perform service by giving such opinions in a court of justice without" being paid for them. (Buchman v. The State.) Learned physicians, thus assured of compensation, will doubtless not refuse any reasonable services to the state, that may be necessary to detect crime, or insure its adequate punishment.

The services which may become necessary to the ends of the state, and which the physician may, therefore, be called upon to render, upon valid promise of fair reward, are threefold in their nature:—1. To investigate and ascertain the facts in a given case, so far as they belong to any department of his professional study, knowledge and experience; 2. To testify to facts so ascertained, and to the scientific inferences deducible therefrom, so far as they may be essential to the ends of justice; and 3. To interpret facts testified to by other witnesses, and state the scientific inferences which, in his opinion and judgment, result from them. Thus, in the first case, he is a mere investigator and observer; but still an investigator and observer of special science and skill, in the particular field of his operations. He takes with him into that field all the implements of his science, essential to the required investigation. The educated senses — eye, ear, and touch; — the awakened intellect to perceive, compare, and judge facts in themselves, in their relation to each other, and to their causes and results; and, along with all, the memory to record and reproduce all when and as occasion shall require. Let pride of intellect prompt him to vigilant diligence in the work in hand, and stimulate and sharpen every sense and faculty so that all material facts may be observed and preserved for the ends of the state. When this is accomplished, his labor, as a mere investigator, is at an end. Of course he will not fail to keep faithful and complete memoranda of every observed fact, so that, should memory fail, it may be refreshed and renewed. In the next place, he is required to lay the facts which he has learned as an expert investigator before some judicial tribunal as a witness. In doing this, he is in scarcely any essential respect different from any other witness to any other facts, even the most gross and common. The only difference lies in the nature of the facts he details. These are more remote from ordinary observation than those of common life; require closer and more careful inspection to perceive and know them; and being objects of scientific study are known only by technical names, unintelligible to those who are not educated therein. The witness to these facts, thus new and strange to the uneducated, must find common words in which to describe and make intelligible and plain these uncommon and obscure facts. Failing in this, he will fail in practical use as a witness; the state will derive no profit either from his labors as an investigator or witness; and both he and his profession will justly suffer in the good opinion of the public. But after reciting the facts which as an investigator he has discovered, he may be required to go further and state his conclusions touching their significance. In doing this, he becomes an expert witness. Some learned men have denied the right to ask the physician to give his opinions touching facts stated by himself; but certainly there is no principle, either of law or medicine, that can be fairly invoked to support the denial. On the contrary, the almost universal practice of men in each profession, and in general science, sustains the propriety of asking him who has discovered the facts to interpret and explain them. And, in the last place, when all the facts of a case, involving a question of medical or surgical skill or science, have been brought before a court or jury, and it is desirable to ascertain and know their significance, they are stated to some of the learned in the profession in the form of a supposition or hypothesis; and his opinion and judgment upon them is asked. With the truth or falsehood of the facts assumed in the hypothesis, the expert has nothing to do. To him, as the basis of the opinion he is to give, they are true. His opinion is either sound or unsound upon that basis alone. If the court or jury trying the case find the facts thus assumed in the hypothesis to be untrue, or any material one of them, the opinion becomes worthless in the ultimate decision of the point involved. If, on the other hand, the court or jury find the facts of the hypothesis to be true, the opinion of the expert, fairly rendered in accordance with the principles of his science and professional experience, ought to control the final decision of the point embraced in it, even if that be conclusive of the entire case.

INDIANAPOLIS.

(To be continued.)

OXALATE OF CERIUM AND CAFFEIN AS PREVENTATIVES OF THE NAUSEATING EFFECTS OF OPIUM.

BY SAMUEL C. BUSEY, M. D.

To Professor Da Costa is due the credit of having first suggested the combination of bromide of potassium with morphia to obviate the disagreeable after-effects which so frequently distress patients to whom morphia has been administered. It frequently happens that the potassium salt can not, in consequence of its bulk and unpleasant taste, be employed. Especially is it objectionable when the practitioner prefers to use opium either in the form of pill or powder; nor is its therapeutic effect always desirable.

To meet these objections I have, for some time past, combined the oxalate of cerium with opium, and have in very many instances found it equally efficacious in obviating the nausea and mitigating the distressing after-effects. Sir James Simpson introduced the oxalate into use as a very valuable agent in relieving the nausea and vomiting of pregnancy. Since then its employment has been very widely extended, and it has become quite common to combine it with drugs to secure their tolerance by the stomach.

For a long time I have been accustomed to prescribe a strong decoction of coffee, without milk or sugar, in drachm doses administered every fifteen minutes, to relieve the nausea and headache following the employment of opium. Since the introduction of the effervescing citrate of caffein, I have found it a very agreeable and efficient substitute for the less palatable beverage. These agents are, however, only applicable after the occurrence of the stomachic disturbances. The citrate of caffein, though less efficient than the oxalate of cerium, may be combined with opium. It is inadmissible in those cases where opium produces wakefulness instead of drowsiness. I have sometimes fancied that it lessened the soporific, without affecting the analgesic, properties of opium.

It may be that these applications of the drugs are quite common; but if they have been previously published, it has escaped my observation.

WASHINGTON, D. C.

A CASE OF GUNSHOT WOUND, THE BALL ENTERING THE CRANIAL CAVITY THROUGH THE FORAMEN MAGNUM.

BY ENOCH W. KING, M. D.

Leopold S., aged twenty-four years, left home on the morning of September 24, 1872, to go to Jeffersonville, Ind., and return that night, and was found about noon the next day by the roadside, on a range of hills known as the "Knobs," with a pistol-shot wound in his neck. He was taken home, and I was called to see him at 9 A. M., September 27. I found him unconscious and delirious at times; a pistol-shot wound entering about half an inch below and posterior to tip of the right mastoid process. I probed the wound to the depth of an inch and a half in the direction of the cervical vertebræ, but could not detect the ball nor go farther with the probe. An inch around the wound was badly powder-burnt. There were several small incised wounds on the face, body and hands, but none of them serious. No one could give any history of how the wounds had been received, nor did he recover sufficient intelligence to give any statement himself.

The clinical features of the case were perplexing. He had been having intermittent fever the week before he was shot. He presented many symptoms of meningeal inflammation, while the rigors and sudden changes of temperature indicated pyemia; but about the tenth day our diagnosis became plain, by the appearance of quite a copious discharge from the wound of thin watery fluid, which continued in varying quantities till death took place on October 15, 1872, twenty-one days after being found.

There was no paralysis at any time, but perhaps a loss of coördination of muscular movements, as he could not be persuaded to walk after he was found. One night, while delirious and not closely watched by his attendants, he got out of bed and fell against the opposite wall of his bedroom.

At the coroner's inquest, thirty-six hours after death, I made an examination of the wound by cutting across the back of the neck down to the track of the ball, and found it had struck the margin of the superior and lateral surface of the posterior arch of the first cervical vertebra or atlas, near the tubercle, and glancing upward and across, passed through the foramen magnum, posterior to the spinal cord, but wounding the dura mater and arachnoid. A considerable quantity of thin watery fluid was to be seen here, with well marked evidences of inflammation. The friends of the deceased objected to any further examination.

By request of a detective, who was endeavoring to fathom the mystery of his death, Drs. Easley and Lemon, of New Albany, had the body disinterred two weeks afterward, and opened the skull. The brain substance was so broken down by decay that the track of the ball could not be traced through it, but it could be easily seen where it had passed through the tentorium cerebelli. The ball was found lying on the right orbital plate.

The parties who discovered the deceased said that when first found he was conscious, and stated that he had been attacked the night before soon after dark by two men at the foot of the "Knobs," who had shot and cut him, and that he had walked up the "Knobs" during the night over a mile in distance.

Some physicians who were consulted in regard to the case, basing their opinion on the experiments of Flourens, that in the cerebellum resides the power of muscular coördination, said it would have been impossible for the deceased to have walked that distance after receiving such a wound. The parties who found him were suspicious characters, and on the strength of that and the medical opinion, they were arrested and brought to trial; but as no evidence could be produced more positive than the medical opinion, and that doubted by eminent physicians who were engaged by the defense, the prosecution abandoned the case.

GALENA, IND.

MALARIA OF CHILDREN.*

BY WILL M. THORNBERRY, M. D.

Malarial poison, like many other medical topics, has often engaged the minds of eminent members and writers of our profession, and as a reward for diligent and untiring exertion, the cause or combined causes of malaria are now quite satisfactorily determined; but its symptomatology among infants and children yet remains undefined. Adults are, as a general rule, affected by malaria oftener than children, and in ninety-nine out of each one hundred cases the diagnosis is not difficult; while the same poison in the system of a child will often produce a train of symptoms that will, for a time at least, baffle the most skillful practitioner, for the twofold reason that children, who have not the advantage of speech, can not give any satisfaction in regard to the disturbance of the internal organs, and, second, because of the similarity in many instances of symptoms presented by organic lesion and functional disturbance. In order to comprehend this fact more clearly, I will present in order a few out of many interesting cases which I have witnessed.

CASE I. Elmos W., aged six years, was taken with torticollis, or what is called by the popular name of "wry-neck." His father consulted me in regard to his case, and I prescribed stimulating ointments and rubefacients; but, as I was afterward informed, no good was accomplished from their use, and the trouble grew worse, while the inclination of the head to one side was increased. Four days after, I visited the child and found him with high fever, which I learned had been gradually rising for twelve hours. His head was very hot; eyes languid; complexion sallow, with a little tinge of red in proportion to the fever; pulse quick and full; tongue pale and flabby, considerably furred, with lateral indentations of the teeth. I ordered applications of cold water to the head, gave him a brisk cathartic, and obtained a partial remission of the fever in two hours. I then put him on full doses of cinchonidia, with small portions of Dover's powder, every three hours, and ordered the cold water applications to be continued. I returned in twenty-four hours to find my little patient in free perspiration, and no symptoms whatever of torticollis.

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* Read before the Webster Medical Association, Dixon, Ky.

This case presented a remittent type, from what the mother informed me, from the beginning of the trouble. The child would seem to suffer greatly for ten to twelve hours, and then would come a period of two or three hours' quietude; in short, it was a case of malarial trouble from the very beginning, taking the torticollis as a mask, and teaches the positive necessity of personal inspection in all cases of a doubtful nature, especially in children.

Case II. Luther C., aged three weeks, had been under treatment for two days previous to my visit without beneficial result. I found the infant very restless, pulse extremely quick, head hot, tongue dry and thinly furred, with considerable muscular twitching from nervous disturbance; the liver and spleen were both tender, the spleen very much so, and a gurgling or bubbling sound was distinctly audible in its vicinity, while a sensation of friction could be felt over the organ. The mother stated that the child slept but little, being quite fretful nearly all the time; but in the afternoon of each day its symptoms were little short of a true spasm for several hours, after which little nervous disturbance of consequence was perceptible until the afternoon of the next day. Gathering what I could from the above statement, the diagnosis of malaria was made, and I ordered cold water applications to the head to be continued so long as twitching of the muscles was observed only, and gave mercury in small doses to arouse the secretions of the bowels (which were moderately constipated), and left six doses of cinchonidia in powder to be given before twelve of the next day. In the afternoon of the next day I returned, finding the babe in a quiet slumber, from which it had not been aroused for five hours, and with a cool but moist skin.

Before passing to another case, let me call attention to one of the most frequent sources of serious error in the diagnosis of many diseases of children. I allude to the previous ailments of parents, for often physicians, without proper discrimination in each case, refer diseases to hereditary taint. As an illustration take the preceding case. Both parents of this infant are of extremely nervous temperament, the babe had been treated two days without any improvement by a physician of considerable repute, who had mistaken a symptom for the disease, and had diagnosed spasm of the bowel instead of malaria, doubtless aided in this incorrect decision by a knowledge of parental temperament, and viewed the spasmodic symptoms in the offspring as due alone to functional nervous disturbance.

Case III. Aaron K., aged eleven years, had been treated two days for "bloody diarrhea." I found him with considerable fever, cephalalgia, tongue slightly coated but moist, and abdomen hot and tender. On inquiry I learned that the child went to stool frequently during the day, passing quantities of mucus of a sanguineous tinge, but with the approach of night the evacuations became more frequent, highly sanguineous, approaching the character of genuine acute dysentery. This latter condition lasted a few hours, and would gradually be replaced by the discharge of sanguineous mucus as before. Twenty-four grains of cinchonidia, with nine grains hydrarg. submur., was sufficient to relieve this case.

Case IV. Was called to see Eliza T., aged four years, who was under treatment for pleuritis, but medication had availed nothing during the forty-eight hours of her treatment. She was suffering great pain apparently in the right pleura; had a bounding pulse; tongue coated with a thin white fur, was pale and flabby, the under surface bearing indentations of the teeth; the bowels were constipated, probably from previous use of opiates. Auscultation and percussion failed to detect either friction or the presence of fluid in the pleural cavity, while the severity of the symptoms was found to be of a remittent type. It is only necessary to add that previous treatment was discontinued, and the child treated for malaria instead.

I need not relate other cases of similar grade and character to substantiate the fact of varied symptomatology in this disease; for we meet with it in a general practice, masked with almost every conceivable form of disease to which children are subject where the poison abounds. We note it in the form of neuralgia, cephalalgia, dysentery, pleuritis, torticollis, odontalgia; and I have even witnessed it masked in the form of ophthalmagra, and other varied symptoms equally as distant from the true source of the disease. In our vicinity, for the last few years, malaria has continued to affect our people from April of one year to April of the next, and neither old nor young are exempt. Like a few other medical topics, this one of miasmatic poison, has so often been presented to the medical profession, that to many its study has ceased to engage the mind; and yet we might safely venture the assertion, "that while a majority of our members are competent to arrive at a tolerably exact conclusion in cases of adults," they will often be found lacking in cases of children, under two years of age, suffering from the same common cause. Why? Because of the general custom, among medical men, of giving heed to the general pathology set forth by authors, as being applicable to persons of all ages suffering from like causes; and it must be admitted by all intelligent practitioners that no general train of symptoms, in febrile affections of adults, can be taken as a standard in ailments from the same cause in children under two years old, from the fact that quite a difference exists between the two in the processes of absorption, secretion, circulation, sanguification, respiration, etc. The spinal nervous system and the brain of children at this age are in a stage of active growth, and play a very important part in disease, both presenting a few almost analogous symptoms in nearly all affections susceptible of producing nervous disturbance, often sufficiently obscuring the true cause, so as to mislead a reputable physician into the erroneous belief that he has a local or organic disease to battle, instead of one of systemic nature disguised by nervous irritation. The cause that produces rigors or delirium in an adult, will often produce convulsions in the young child. Hence, the necessity of a more careful examination in the diseases of children than in those of the adult, for the reason that, through reflex or sympathetic action, certain phenomena often exist to allure an otherwise proper discrimination away from the real malady, of which such phenomena are merely trivial results.

Spasm in children can be traced through this same sympathetic influence as a prominent symptom in not a few diseases of children, yet until a comparatively recent date nearly all convulsions of infants were imputed either to teething or to worms; but Dr. Hillier reasonably supposes that these are doubtful causes, except in children where a predisposition exists. I can safely say that nine-tenths of all spasms that I have met with in children were the result of cephalemia during intermittent paroxysms, or due to excessive gastric or intestinal irritation dependent on the same cause. Occasionally we have spasms in children which we are unable to attribute to other causes than irritation from the presence of worms in the alimentary canal; but I never met with a case of "worm spasm," but that the same phenomena were present in the same subject during intermittent and remittent fevers, when the temperature was high.

In regard to the malarial forms of fever, the intermittent is most simple, and with its various masks can usually be readily determined by its periodicity; but the remittent form will frequently require the most judicious examination to differentiate between it and other diseases capable of producing an almost identical train of symptoms. Yet there are two indications present in the malarial remittent of children which are seldom present in other diseases, namely, an indurated, pale and flabby tongue, and very slight tenderness of the spleen,—these are almost pathognomonic; for if we find one of these symptoms in a non-malarial fever, the other is usually wanting, but in a case where malaria is predominant both symptoms are invariably present. This fact I have deduced from many cases, and do not remember of one single case treated by me in which both symptoms were not more or less cognizable, if not at the beginning of the fever, then on the second or third day.

In almost all forms of fever in children there is a tendency to remission, and thus has originated the injudicious term of "infantile remittent" which often serves as a cloak for ignorance; for while the term *intermittent*, in the child as well as adult, is always understood to be of malarial origin, and to require the same treatment, the *remittent* in the adult is considered as due to malaria, while in children, in whom most all the forms of fever are remittent, it is often an ambiguous term, and does not express the etiology and indicate the treatment of the disease so perfectly as the term malarial remittent.

A correct diagnosis is inevitably essential to a proper treatment, especially so in this disease, which is quite as speedily subdued in the child as adult; and a fact which we learn from experience, yet one which is not generally presented by writers, is that heroic treatment is of greater importance in the child than in the adult, for the reason that the organism of the former is more susceptible to change, their nervous system being more easily depressed, and dangerous complications more likely to supervene.

POOLTOWN, KY.

EXTENSIVE LACERATED WOUND OF THE ABDOMEN OF A PREGNANT FEMALE.*

BY L. COREY, M. D.

On the 27th of January, 1876, I was hurriedly called to see Mrs. S. C. R., aged thirty-five years, wife of a farmer, an athletic woman, weighing one hundred and thirty-five pounds, and at the time in the third month of pregnancy. She had just received an injury from a vicious cow, which with great violence had thrust one of its horns through the parietes of the abdomen, near the hypogastric region. The woman was lifted into the air, carried some distance and tossed upon the ground by the infuriated animal. Soon as possible the husband, who was near by, lifted her in his arms, and carried her to the barn. Upon a hasty examination he found the intestines had escaped through the wound, and after making an unsuccessful attempt to return them, he carried her a distance of six or eight rods to the house, placed her upon a lounge and sent for me.

About an hour and a half after the occurrence of the accident, my brother (Dr. L. J. Corey) and myself arrived at her bedside, found her lying with almost all the intestines outside the abdomen, with pulse frequent and feeble, respiration hurried, and almost continuous vomiting. Although fully aware of the desperate character of the wound, she was perfectly composed, not manifesting the least alarm in regard to her condition.

Upon careful examination, we found the cavity of the abdomen had been penetrated one and a half inches to the right of the median line, just above the pubic bone, making a ragged, lacerated rent in the parietes, ranging obliquely to the left and upwards, terminating one inch to the left and on a plane with the umbilicus, making a wound at least five inches long, through which the great omentum, ascending, descending and transverse colon, and most of the small intestines, had escaped, and from which the pyloric extremity of the stomach protruded. The great omentum was much congested, and had two lacerations to the extent of two inches each. It was extensively mangled and comminuted, so that portions adhered to our fingers in handling it. The protruding portion of the stomach and the extruded intestines were not injured as far as we could observe. Upon introducing my right hand into the cavity of the abdomen I could detect no further injuries, but found a considerable amount of extravasated blood, which I made no attempt to remove. Our prognosis as to the result of the case was unfavorable, and we requested counsel and assistance, which were sent for.

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* A paper read before the Indiana State Medical Society, May, 1878, and ordered to be published.

Meanwhile we proceeded to cleanse the omentum and intestines of all foreign substances adhering to them, placed the patient on a lounge suitably prepared, elevated the shoulders, and flexed the thighs upon the body to relax the abdominal muscles as much as possible, and then attempted the return of the extruded viscera, but did not succeed. An anesthetic (chloroform and ether, two and a half ounces, being all we had at hand) was administered, but without inducing perfect unconsciousness, when another attempt was made to return the displaced bowels, but with no better results. Every attempt to replace the intestines excited such forcible and persistent bearing down contractions of the abdominal muscles, as effectually to defeat it.

The condition of affairs at this time was, to say the least, decidedly embarrassing. The intestines had now been out of the body two hours, and we had to send two miles for an additional supply of anesthetics. Under the circumstances I determined to enlarge the opening to facilitate a reduction. With a probe-pointed bistoury I divided the parietes from the upper extremity of the wound about one inch, and made another unsuccessful manipulation.

During all this time the patient, perfectly conscious and in full possession of her mental faculties, looked with calm and hopeless composure upon her frightful condition, the contents of the abdomen named above lying on both sides of the body, and the great omentum spread over the chest to prevent its being interfered with in the efforts to return the intestines.

About 9½ P. M., and three hours and a half after the accident, Dr. Jonas Goode, the physician called in consultation, arrived, also the messenger with the chloroform and ether. Dr. Goode made an examination, and found her condition as above described.

Fearful that the patient might not rally from the full effects of the anesthetic, it was thought best to obtund, but not entirely obliterate, sensibility. In about ten minutes she was so well under the influence of the anesthetic, that we thought the bowels could be returned, and Dr. Goode and myself made a pretty strong effort to return them, but the resistance met with in the former attempts again prevented our success. Finding it utterly useless to further persist in these manipulations short of profound anesthesia, she was promptly brought to this condition, and within twenty minutes the extruded viscera were returned, first the large, then the small intestines, and lastly the omentum. Dr. G. retained the parts *in situ*, while I pared away the tattered tissues, brought the edges of the wound together, and secured them by eight silk sutures passed through the walls of the abdomen. The dressing was completed by the application of adhesive straps, compress and roller bandage.

The patient was then placed in bed, on her right side, in which position she remained two hours. By this time she had almost recovered from the effects of the anesthesia, which passed away without the least unpleasant consequences, and without either nausea or vomiting. She was now placed upon her back, with the shoulders and hips elevated and the thighs flexed upon the body. The fourth of a grain of morphia was given at one o'clock A. M., and the same amount was ordered every three or four hours should suffering require it.

January 28th, 9 A. M.—The patient took but two doses of morphia, and rested well the latter part of the night; slight tympanitis, but very little tenderness of abdomen; pulse 70, respiration 25, temp. 99°. With the exception of a desire to void urine, says she is quite comfortable; a pint and a half of healthy appearing urine was drawn by means of the catheter, and was followed by immediate relief. Treatment, one-fourth of a grain of morphia every four hours. 3 P. M., rested well to-day; continue morphia every six hours.

January 29th, 8 A. M.—Pulse 68, respiration 18, temp. 99°; tongue dry, no thirst; but slight tympanitis or tenderness of abdomen. 7 P. M., pulse 69, respiration 20, temp. 99°; urine drawn by the catheter.

Patient continued uniformly comfortable, free from fever, pain, and every unfavorable symptom, up to final recovery. The anodynes, which were never largely required, were gradually reduced, and in a few days left off altogether. On the fifth day there was fair appetite; on the eighth the bowels were well moved. After this the catheter was not required. Removed four of the sutures on the ninth, and the remainder on the tenth day. The wound healed by first intention, excepting at the point of penetration. Twenty days from the occurrence of this most frightful casualty, our patient was dismissed cured.

On the eighteenth day of the following August, just two hundred and two days after the accident, I was called to attend this woman's accouchement, a speedy and natural labor terminating in the birth of a well developed female child, apparently at full term; and at the present time (May, 1878), mother and child are both living, and in the enjoyment of excellent health.

VAN BUREN, IND.

FOREIGN CORRESPONDENCE.

DR. YANDELL'S LETTERS FROM ABROAD—No. V.

LONDON, JULY 15, 1878.

MY DEAR PARVIN: In order to make your September repast more digestible than any I have yet provided you, I shall reduce the number of courses to three, and have these strictly professional. If you find fault with the plainness of the meal itself, you will be forced to say that the table is handsomely decorated with wood-cuts. And that's something. The Hidalgo's dinner was objected to because it contained very little meat and a great deal of table-cloth. I intend to reverse this, and give you largely of meat.

Shortly after I reached London, Wm. Adams, Esq., read, before the Royal Medico-Chirurgical Society, a paper on "*Dupuytren's Contraction of the Fingers.*" I was much interested in the subject, and, through the courtesy of Mr. A., had the opportunity of seeing the gentleman whose hand is represented in Figures 8 and 9. I am indebted to Mr. Ernest Hart, the very able editor of the British Medical Journal, for electrotypes of the wood-cuts with which the paper is illustrated. An abstract of the paper can not fail, I think, to interest you.

Fingers contract, from a variety of causes, *e. g.*, abscesses in palm, laceration of tendons, cicatrices from burns, etc. The particular contraction under discussion was first accurately described by the illustrious French surgeon, and justly bears his name. It is commonly met with in men about the middle, or beyond the middle period of life—very rarely in younger individuals; and Mr. A. has never seen it in women. [I must believe I have seen two cases in elderly females.—D. W. Y.] One finger alone may be affected, and this Mr. A. has found to be usually the ring finger. Other writers have seen the little finger most frequently first affected. But in whatever finger the disease begins, the adjacent fingers generally become involved, though in less degree. The contraction is, however, sometimes limited to a single digit. The thumb and index finger seldom participate in the disease. The articulations generally remain healthy. Flexion is free; efforts at extension excite pain from the resistance offered by a hard contracted cord, reaching from digit to palm, to which the skin of the palm adheres closely. The skin of the palm, near base of the diseased fingers, is usually drawn into thick, knotty folds. Most authors ascribe the disease to local causes, as pressure of palms and fingers in certain occupations, *e. g.*, carpenters, gunners, wire-drawers, etc. It is often found, however, to depend on a constitutional cause, and this, in Mr. Adams's opinion, is almost if not always the gouty diathesis. In support of this opinion he states that he has seldom observed it in the laboring classes, but generally in the middle and upper classes. It is found associated with the gouty tendency, particularly with the rheumatic gout, which affects several joints, and often produces enlargements of the articulations of the fingers. Further, the contraction is frequently met with in the left hand only, and occasionally in both hands; and in several instances Mr. A. has seen two brothers suffer from it, and occasionally father and son. For these reasons he thinks constitutional causes play a much larger part than local in the production of the disease.

Mr. A. has never had an opportunity to dissect one of these contracted fingers, but he had the following interesting experience: A gentleman, aged fifty, who had contraction of the fourth and fifth fingers in each hand, had the diseased fingers of the right hand accidentally torn open, and the skin in the palm along with the palmar fascia torn across, making a large gaping wound reaching half way across the hand. The tendons and their sheaths, which were uninjured, lay in place, and were found not to be implicated in the contraction, whilst the fascia, which had evidently been stretched like the string of a bow, was the real seat of the mischief. In attempting to extend the fingers the wound, previously transverse, assumed a lozenge shape, in a perpendicular direction. Secured in this position by sutures, and the hand bound with strips of plaster and bandaged to a splint, with the fingers extended, union occurred, leaving the fingers nearly straight, and their power of flexion good.

In addition to this instructive case, Mr. Adams has been able to appeal to a dissected specimen of finger-contraction contained in the Museum of King's College. (Fig. 1.) Here the little finger, which is alone involved, is seen to be drawn

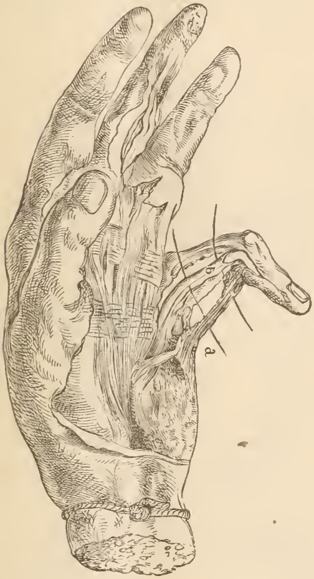


Fig. 1.

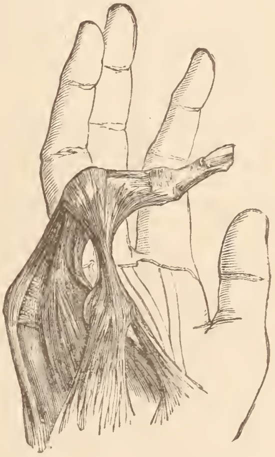


Fig. 2.

FIG. 1. *a*. Contracted band of palmar fascia, stretching across like the string of a bow. *b*. Flexor tendons lying deeply along the concavity of the curve, close to the bones. FIG. 2. Another view of the contracted band.

to the palm by a strong contracted band, which passes along the outer side of the digit along the first phalanx to the beginning of the second. Figure 2 presents another view of the same, showing the contraction to depend upon a band of the palmar fascia. Figure 3 represents a lateral view of the fascial band. Both Dupuytren's graphically described case and the dissections here displayed, are wholly opposed to the generally received opinion which locates these contractions in the tendons and their sheaths. This view of the anatomical conditions which effect the contractions is substantiated in every particular by Mr. A.'s clinical experience. In every case on which he has operated, Mr. A. has found that after subcutaneous division of the tense and prominent cord, which is generally thought to be a tendon, the patient was able to flex the finger as strongly as before, a fact which proves that the fingers do not, as is usually stated, remain stiff and inflexible after the operation.

Mr. A. has had the opportunity to see the disease begin in one hand, where it was already developed in the other. And he thus traces its progress:

The *first* stage is characterized by a flattened nodular induration in the palmar fascia, in or just above the crease in the palm of the hand, corresponding to the metacarpo-phalangeal articulations. The skin is not at first adherent to this spot. In one case the beginning of a fascial-cord contraction could be traced, leading from the transverse crease to the little finger.

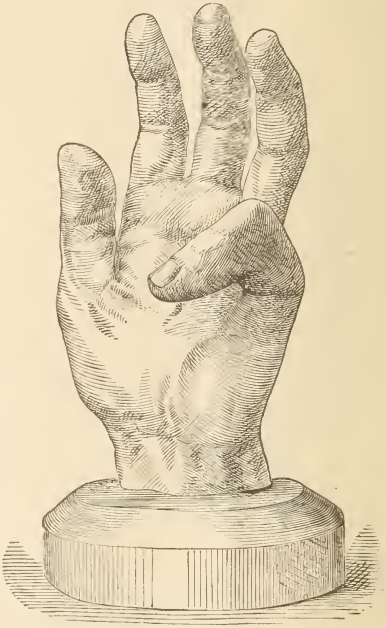


Fig. 3.

Fig. 3. Shows the hand represented in Fig. 1, previous to dissection.

In the *second* stage, the skin becomes adherent to the thickened fascia and a puckered dimple is produced, extending from which toward the finger a thickened band of fascia can be distinctly felt.

The *third* stage is an exaggeration of the second, plus the formation of a thick cord-like band of fascia, leading from the central thickening toward the annular ligament of the wrist, accompanied by a gradual drawing down of the finger or fingers toward the palm of the hand.

The *treatment* is either mechanical or operative, the former being applicable only to the very slight cases, the latter being indispensable in either severe or long standing cases.

Mr. A. operates by the subcutaneous method, using a knife very much smaller than that with which tenotomy is commonly done. (Fig. 4.) He thinks the open method unnecessarily severe, tedious in healing, liable to suppurative inflammation, and especially inclined to failure, an event which leaves the patient worse than before the operation. He makes the *first puncture* at the greatest distance from the finger, in the palm of the hand, a little removed from the point where the skin is adherent to the fascia, and where it is not tightly stretched over the cord, so that the blade can be readily introduced between the two. He then carefully divides the cord by cutting downward, taking care to injure no neighboring structures. He makes the *second puncture* at the other end of the contraction, as near the finger as possible, and in the same careful way divides this extremity of the fascial band, whereby that portion of the cord occupying the palm is cut off from its connections both above and below. To make the *third and fourth punctures*—(and he seldom does more on one finger, and rarely operates on more than two fingers at a sitting)—he introduces the knife at the bifurcation of the web between the fingers, and, directing its edge obliquely upward and outward toward the palm of the hand, divides the lateral bands or digital prolongations of the palmar fascia which extend from the central cord in the palm to the adjacent sides of the fingers. These incisions cut the strongest and most prominent bands which produce the flexion of the first phalanx of the finger on the hand, and should be very

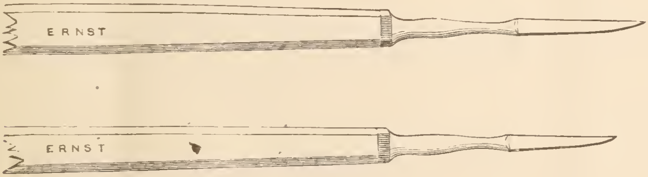


FIG. 4. Small knives used for division of the bands of fascia.

thoroughly, and in order to avoid wounding the vessels or nerves alongside the fingers, very carefully executed. Occasionally lateral bands of contracted fascia require to be divided opposite the center of the last phalanx. This is to be done by puncture at the edge of the contracted bands, the knife being directed transversely toward the bone. Here great care is necessary lest the artery or nerve be injured, for the band, though tough and strong, is at the same time very thin. These bands are divided best with what Mr. A. calls the scissor-pointed tenetome, *i. e.*, with the point of the straight cutting edge represented in Fig. 4 as the central-pointed tenetome in general use does not do this work so readily, or with the same precision. Sometimes a lateral band, between the first and second phalanges at a point corresponding to the articulation, may require to be divided. This, too, should be done with great care. Mr. A. makes no central incisions in front of either the first or second phalanx, lest the tendons or their sheaths be severed, and the power of flexing the finger thus be destroyed.

Mr. A. places over each puncture a pledget of lint, and secures it by a strip of plaster. He then makes immediate extension to the full extent required for the complete straightening of the fingers, where this is possible, and applies a retentive well-padded metal splint from the wrist along the palm of the hand and the fingers; the fingers and hand being bandaged to the splint. (Fig. 5.)

The bandage is not removed until the fourth day, when the lint and plaster may also be taken off,

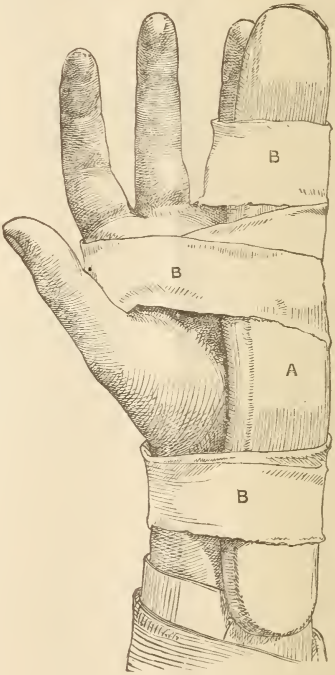


Fig. 5.

FIG. 5. Retentive metal splint to which the fingers and hand are bandaged after the operation.

as the cutaneous punctures are always found to be healed by the fourth day. The retentive metal splint should be reapplied, and the hand and fingers bandaged to it.

Extension should be kept up by the splint worn continuously night and day for two or three weeks; but the splint and bandage should be changed every two or three days. After this, the extension splint need be worn at night only, for an additional three or four weeks, frequent movement of the fingers being encouraged during the day.

Under this mode of treatment, Mr. A. rarely finds the deformity to recur; and when it does, the relapse is but partial and is readily corrected by dividing such bands as have previously escaped, or such as may have become prominent, and

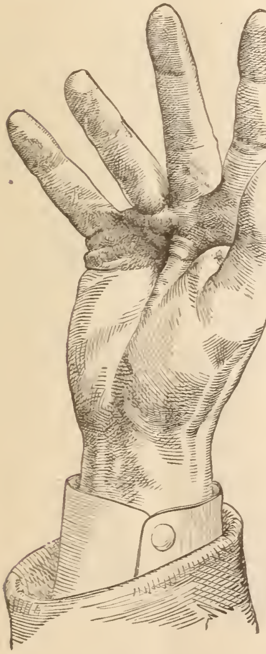


Fig. 6.

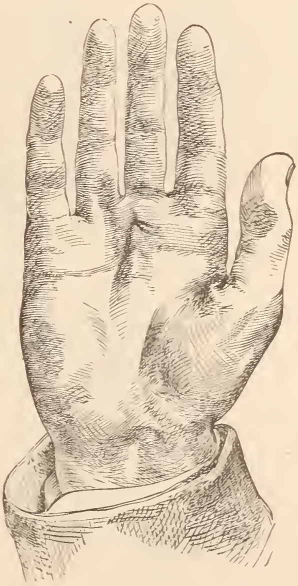


Fig. 7.

FIG. 6. Hand showing Dupuytren's contraction of middle and ring fingers, with prominent cord in palm of hand. (From a cast.)

FIG. 7. The same hand as shown in Fig. 6, one year after operation. (From a photograph.) The fingers are perfectly straight and useful, the voluntary power not having been interfered with by division of tendons.

reapplying the dressing. He thinks relapses here compare most favorably with those which occur after the open wound method, which, from the nature of the cicatricial contraction, are put beyond further relief.

Mr. Adams employs in the operation either general or local anæsthesia. When the latter, he overcomes the hardening of the skin—whereby puncture is made difficult—by rubbing the parts with his own hand till they thaw and soften, which, not affecting the anæsthesia of the deeper-seated structures, renders the incisions almost painless.

In Figure 7 the fingers, it will be observed, are perfectly straight. They are also useful, the voluntary power not having been interfered with by division of tendons.

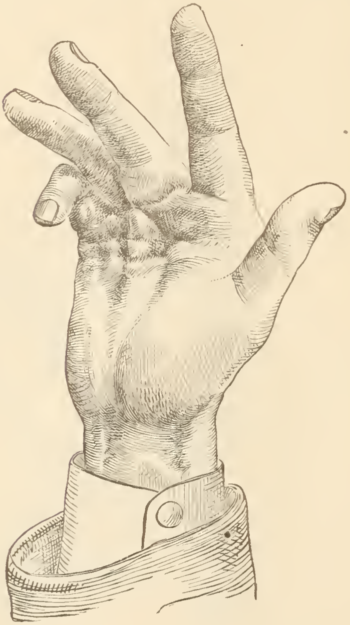


Fig. 8.

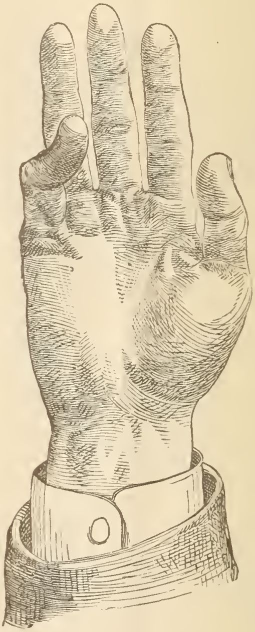


Fig. 9.

FIG. 8. Hand showing Dupuytren's contraction of middle, ring, and little fingers. (From a cast.)

FIG. 9. The same hand as shown in Fig. 7, thirteen years after operation. The middle and ring fingers remained completely cured, with full power of flexion; and all trace of contraction in the palm of the hand had disappeared. The little finger, which never could be brought quite straight, from alterations in the joint, said to be the result of injury, remains contracted between the first and second phalanges. (From a cast.)

Reviews.

Transactions of the Medical Association of Georgia, Twenty-Ninth Annual Session—Atlanta, April 17, 18 and 19, 1878. Atlanta, Ga.: James P. Harrison and Co , Printers and Binders.

This volume of nearly three hundred pages is well printed on good paper, and neatly bound: considerable credit is due the publishers in this regard.

Passing by the minutes of the association, we come on page thirty-five to the addresses and papers.

The first of these is the address of the president, Dr. W. O'Daniel, of Bullards. This is brief, and rather too general in its character to admit of any analysis. It pays a just compliment to the venerable Dr. Lewis D. Ford, the first president of the society; utters some noble sentiments as to the dignity of the physician's work; urges the importance of physicians requiring adequate compensation for their services; compliments American surgeons and gynecologists, Sayre and Sims being mentioned, and also American medical journalism; then, after incidental references to various topics, concludes by considering at some length the subject of the State Board of Health, and urging the value of sanitary work. Under the last topic he speaks of New Orleans as being comparatively free from yellow fever, this exemption being "mainly attributable to the continuous labors of an intelligent and well organized sanitary board." The illustration, appropriate enough at the time it was used, seems an unfortunate one in this month of August, when the terrible plague is visiting so severely several of our southern cities, New Orleans among the number.

Next in the volume is the "annual oration," which is by Dr. Wm. R. Burgess, of Macon. This is quite brief, and is devoted to "Hasty, Unwise and Unfortunate Medical Literature." For so large a subject, the space is entirely too small; nevertheless in it Dr. Burgess criticizes very justly the publication of so-called successful plans of treatment before they have been verified, leading readers to their adoption, and in many cases consequent disappointment.

Following the oration is a report of cases by Dr. T. F. Walker, of Cochran. Dr. W.'s first case is, as it seems to us, one of twin conception, with death of one of the fetuses at two months and a half, the other being fully developed and born at full term. Dr. Walker's other case was one of eclampsia, coming on after delivery. Forty-three severe convulsions occurred; the treatment was copious bleeding, and chloroform and hypodermic morphia and atropia.

Dr. George J. Grimes gives a report of a case of supposed tubercular meningitis, in a man forty-eight years of age.

Yellow Fever, its history, causes, nature, pathology and treatment, (considering exclusively the epidemic of 1876 in Savannah), is the next paper, its author being Dr. J. C. Le Hardy, of Savannah. This is an exceedingly interesting, valuable and opportune paper, and no abstract can do it justice. The subject, however, of treatment is so well presented, that we give it in full in the author's words:

> Since the epidemic of 1858, I have been impressed with the belief that our yellow fever is a disease of malarial origin, and I have consequently held its most judicious treatment to be the same as that pursued in high grades of remittent fever. In 1876, when this fell disease summoned our medical staff to their best and most untiring efforts, this was the treatment I adopted in the first cases that came under my care, and finding it good, I adhered to it to the last.
>
> Whenever the patient presented that peculiar congestion of the skin, with a sluggish capillary circulation, his breathing quick, and complained of pains in the head and back, a hot mustard bath was ordered, he being covered with a blanket while in the bath, and the whole surface of the body well rubbed. The usual result of a single bath was a profuse perspiration, abatement of pains, diminution of breathing. He was then wrapped in the same blanket, laid in bed, and warmly covered in order to keep up the perspiration. If necessary a second or third bath was administered in order to obtain the desired result—improve-

ment in the circulation. The heat of the body was furthermore allayed by frequently sponging the skin with warm water, to which alcohol in some shape was added for the purpose of increasing evaporation. The patient being for no purpose uncovered while in a moisture.

In case the stomach was irritable, warm water, or mustard and water, was given, and, its contents being disgorged, a mustard plaster was applied over the epigastrium. Just as soon as the medicine could be procured and the stomach could retain it, calomel, from eight to twelve grains, was given. If perspiration had been obtained, quinia, five to ten grains, and where restlessness was present without irritability of the stomach, Dover's powders, six to eight grains. This either in three doses, two hours apart, or together in a single dose. In this case the quinia alone was continued in broken doses of five grains, until its effects on the nervous system and circulation were fully and unmistakably obtained. Four hours after taking the calomel a dose of castor oil, or where nausea was present, a Seidlitz powder was given. According to the necessities of the case the quinia was continued during two, three, or four days (or longer), *i. e.*, until the temperature had been reduced to its natural standard, and the return of fever no longer to be apprehended. On the second, third or fourth day, when the stomach would become irritable, all nourishment was prohibited, and cracked ice, iced carbonated water, and iced champagne, were frequently administered—a spoonful or less at a time. Where the stomach was not irritable the only food allowed was beef extract (Valentine's) ten to fifteen drops in a spoonful of water, or a dessert-spoonful of home-made beef-tea, every two hours. When there was acid vomiting, accompanied by a burning pain in the epigastrium, neither nourishment nor any kind of medicine whatsoever, was administered by the mouth, and a blister of considerable size was at once put over the pit of the stomach.

Palliatives for nausea were often found in pellets of ice, small quantities of freshly drawn champagne on ice, or Seltzer water with the addition of a little saturated solution of bicarbonate of soda. For sustenance, injections alone were relied on. These contained the yelk of one egg, one table-spoonful of home-made beef-tea, or one teaspoonful of Valentine's beef extract, and fifteen to twenty grains of sulphate of quinia, all rubbed well together, in a little cooked starch, or white of egg, sufficient to fill a one ounce syringe, and were given about every four hours. When this irritability of the stomach subsided feeding by the mouth was resumed, but with great care, lest a relapse should be occasioned by hearty or imprudent eating.

Relapses are not always indicative of imprudence, excess, or careless nursing. They yield generally to judicious treatment and careful nursing, and are, as a rule, less severe than the first attack. In some instances, where the disease appeared at first amenable to treatment, and a favorable issue was expected, owing to some cause, bad nursing, improper nourishment, too free use of stimulants, or too much liquid of any sort, or something else, the fever would return with characteristic temperature; nausea, resulting in black vomit, would occur, and death might ensue on the sixth, seventh or eighth day.

Fatal results were sometimes deferred much longer, when a typhoid form set in, and in some instances where all of these symptoms were developed, the patient recovered.

In about two per cent. of the cases treated by me no remedies, or efforts of any kind, appeared to make the least impression on the disease. All the functions of life seemed to be paralyzed at the onset, and such cases would pass through the different stages of the fever until released by death on the third, fourth, or fifth day.

Yellow fever is very quick in its ravages upon the human system, and promptness in its treatment is necessary to success.

Dr. James B Baird, of Atlanta, contributes a paper on Neuralgia, and concludes it as follows:

1. Neuralgia, literally considered, is not a disease, but a symptom of some unknown pathological state of a sensory nervous trunk, fiber or filament.

2. It is characterized by attacks of pain of greater or less intensity, frequency and duration.

3. The pain is paroxysmal, being marked by more or less complete and protracted remissions or intermissions.

4. The causes of neuralgia are numerous, but the most frequent cause, in the opinion of the writer, in this country at least, is malaria.

5. Its essential pathological nature is unknown.

6. The diagnosis as to the existence of the affection is ordinarily sufficiently easy, though the attempt to trace its origin is frequently attended with much difficulty.

7. The prognosis depends upon the cause and our ability to remove it by the means of treatment at our disposal.

8. The treatment should be constitutional and local.

9. The general treatment should be directed, as far as our knowledge or suspicions will warrant, against the cause of the attack. It should be persevered in with a view of removing any supposed taint or infection that may exist, and of augmenting the powers of the system.

10. Apart from any constitutional therapeutic indications, electricity and morphia hypodermically are the most reliable remedies that we possess.

11. Galvanism is by far the most efficient form in which electricity can be administered.

12. To secure the best attainable results, galvanization must be used intelligently, and, in many cases, perseveringly.

Dr. A. W. Calhoun gives a report of one hundred and thirty operations for strabismus.

Dr. A. W. Griggs, of West Point, presents a "report of the section on gynecology for the fourth congressional district;" the subjects considered — illustrated by cases more or less interesting — being acute menstrual suppression, membranous dysmenorrhea, occlusion of the vulva, etc.

Dr. Stout, of Roswell, furnishes a good paper on Psoriasis.

Dr. Thomas S. Powell, of Atlanta, has a paper on The True Physician. We do not know but this ought to have been a second oration, for certainly its eloquent passages and polished periods seem better adapted for such delivery than to be read as an essay.

The next two papers, the one by Dr. Taliaferro, and the other by Dr. Goldsmith—both these gentlemen of Atlanta—are very interesting, relate to gynecology, and present some quite original suggestions. By the way, considering the original work that has been done and is being done by Georgians for distressed women, one is led to at least wonder if Georgia doctors are peculiarly devoted to the female sex, or if Georgia ladies suffer more than other daughters of Eve! An Italian writer—he was a wicked fellow, of course — once remarked that women have long hair and short ideas. But they do have many ills and much patience, and many and ingenious are the devices for the relief of the former.

But to return. The subject of Dr. Taliaferro's paper is, the application of pressure in diseases of the uterus. Dr. T.'s method is having the patient in the knee-and-chest position, the perineum is retracted with a Sims's speculum; then one or two pledgets of cotton saturated with glycerine will be applied to the cervix, and the rest of the packing is of sheep's wool, the carded wool bats broken into small pledgets or separate pieces, and the vagina filled down to the muscular floor of the pelvis, but not below it. The following are the benefits claimed by Dr. T. for this treatment:

1. It diminishes blood supply and nutrition.
2. It is in the first degree a sorbefacient.

3. It destroys redundant tissues by destructive metamorphosis.
4, It diminishes nervous action.
5. It rectifies malpositions.

The doctor adduces some cases strikingly illustrating the value of pressure treatment. We believe this paper a very important contribution to gynecology.

Dr. Goldsmith's paper has for its subject the pith of the dried corn-stalk as a uterine tent. Dr. Taliaferro had already given the profession the cloth tent, Dr. Sussdorf, formerly of Georgia, now of New York city, the tupelo, and now a third Georgian proposes a new tent, viz., the dried pith of the corn-stalk, and proves its value. Not only for dilatation, and for pressure producing absorption, but also as a vehicle for conveying medicinal application to the endometrium, Dr. G. has found this tent exceedingly useful.

Next to these papers we have reports on surgery from the third, and from the fifth congressional district, the former by Dr. A. A. Smith, of Hawkinsville, the other by Dr. J. T. Johnson, of Atlanta. These reports consist chiefly of reports of cases which, as indeed some of the reports to which we have already referred, ought to have been published in a medical journal and not in a society's transactions. Now, among these cases reported is one of rupture of the uterus at four months and a half of pregnancy—a case of considerable interest, especially as the rupture was not an accident but the voluntary act of the patient—but no operation was performed. What fitness, therefore, in including it among surgical cases? And, indeed, had an operation been performed, would it not belong to obstetrics? Just now there is a contest in some of the London hospitals as to whether obstetricians shall be permitted to perform ovariotomy, the surgeons claiming the operation as their exclusive right. But surely obstetricians in Georgia may perform all the operations of obstetric surgery without protest.

The next paper proper of the Transactions is by Dr. W. A. Love, of Atlanta, and is entitled Diagnostic value of the soft palate, as compared with the tongue, in certain pathological conditions. The following is an extract from Dr. Love's paper:

> In all that class of diseases in which the general condition of the system demands the use of remedies known as cholagogues, of whatever kind, and in all forms and complications, experience has taught me that I risk nothing in saying that the muco-periosteal membrane in the roof of the mouth will, by its yellow tinge, invariably indicate the necessity for their administration; *per contra*, I may say, with equal confidence, that the absence of this yellowness indicates, with equal certainty, that such a class of remedies have been sufficiently used, or are not needed. For twenty-five years this has been my guide, and I do not feel to-day that I have ever been misled by it. Other members of the profession, whose attention I have called to the fact long years since, tell me that as a guide in their daily professional work, it has served them the same good office. Attention to it will do away with much of the use of, or rather abuse of, calomel.

Dr. C. B. Leitner has a brief but very practical paper on the Tar Bandage. The advantages he claims for tarred outside of cloths used as a bandage, whether from amputations or not, are firmness and perfect protection against deposits of all organic character.

Dr. J. B. Roberts, of Sandersville, briefly reports an obstinate case of hiccough—possibly additional evidence of its obstinacy being given by its insertion in these Transactions, where it ought not to be.

The report of the committee on necrology, the constitution and by-laws, and the list of members, both living and dead, conclude the volume.

We have thus completed our review of this volume. But we must reiterate what we have stated as to the unfitness of some of the papers for publication in the transactions of a medical society—the appropriate place for these being medical journals. The volume might have been reduced nearly one-half in size by such judicious disposition of the papers alluded to, and presented more of a complete and congruous character. On the other hand, several of the papers are of much more than of local interest and of temporary value, and deserve to rank high among the contributions to medical literature.

Transactions of the American Gynecological Society for the Year 1877.
Boston: Houghton, Osgood and Co.

This volume fulfills the promise of its predecessor for 1876. The address of the president, Dr. Fordyce Barker, reflecting the man, is sound and practical. It especially advocates the importance of medical gynecology, in view of the prominence now given to surgical therapeutics.

Dr. James R. Chadwick, of Boston, presents new views of the anatomy and functions of the second and third sphincters of the anus, and ably proves them to be mere detrusors.

Dr. John Byrne, of Brooklyn, advocates the use of the galvanic cautery as preferable to all other means of amputating the cervix uteri, because there is less bleeding, less risk of stenosis, and because it is more convenient in every way. His views are based on an experience of over one hundred cases. He operates for cancer, even when the organ is much involved; for cervical elongation, hyperplasia, etc.; insists that there is no more danger of contraction of the os than from other methods; deems want of success due to unskillful use of battery and lack of physical knowledge.

Drs. Goodell and Noeggerath supported mainly these views. Dr. Scott vigorously opposed any method of amputation.

Prof. John C. Dalton presents an admirably illustrated report on the corpus luteum.

Dr. Otto Spiegelberg, of Breslau, Prussia, considers true puerperal eclampsia to be due to uremic poisoning, advocates in treatment the maintenance of blood-letting, and very reasonably, too, inasmuch as it is the most speedy means of soothing the irritated sympathetic, reducing arterial tension and establishing the renal functions.

Dr. George H. Lyman, of Boston, recommends the use of dilating tents in metrorrhagia, and suggests as explanatory of the procured effects that the bleeding is due to a spasmodic construction of the internal os, and that this interference of the return circulation is ablated by the method of dilatation.

Prof. William T. Lusk, of New York, asserts that anesthesia, in some cases, arrests or weakens uterine action, and that chloroform is not always innocuous in labor.

Dr. Ely Van de Warker, of Syracuse, ably supports the use of the uterine stem pessary, and cites many eminent living authorities in support of his views; but the general voice of Fellows, as evinced by the discussion, was against the treatment, except to a very limited extent.

Dr. William Goodell, of Philadelphia, reports cases of vaginal ovariotomy, and commends it for small tumors, in certain cases, where a vaginal presentation is marked out; where possible, prefers the abdominal incision on account of greater facility of performance.

Dr. Battey, of Georgia, presents new reasons for the application of his ovariotomy, chief among which are fatal results that sometimes follow ovulation, coupled with imperforate or imperfect uteri. This surgical novelty is evidently gaining more extended recognition.

Dr. Theophilus Parvin reports a case of ovariotomy in which the good result was prevented only by a tetanus intercurrent. The rarity of this accident is shown by an extended table.

Dr. Paul F. Mundé, of New York, reports that electrolysis has a secondary value as a means of cure of ovarian tumors, compared with the excision operation, but credits it with success in a certain number of cases, and in some with a fatal issue.

Dr. T. A. Emmet, of New York, reports and claims novelty for an operation for reëstablishment of the canal in accidental atresia and congenital absence of the vagina, which consists essentially in reaching the cavity of the uterus by any possible means at one time, the washing of the same, and the maintenance of the opening by the use of a glass plug.

Dr. Engelmann, of St. Louis, presents an extended exposition of the hystero-neuroses, or functional disturbances of the various organs due to nervous irritation proceeding from the uterus.

Dr. Wilson, of Maryland, recommends, after five years' use, rapid dilatation of the cervix uteri, as a preferable substitute for tents, bougies, etc., in all cases, and, for the purpose, offers an instrument of his own devising, by which distension is obtained by opening a pair of catheter-shaped forceps blades.

Dr. A. Reeves Jackson's paper on vascular tumors of the female urethra, is of the sort that the general practitioner finds so satisfactory, for it tells him exactly how to cure his patient.

Dr. Thad. A. Reamy, of Ohio, strongly advocates surgical interference in all cases of perineal laceration, however slight, in view of the results which this condition, when not thus corrected, involves.

These, with several other elaborate articles on important subjects, make up the volume of seven hundred pages.

The volume will be a welcome addition to the library of every physician in the land, and will not only ably sustain, but greatly increase the fame of American medical literature.

J. G. R.

Atlas of Skin Diseases. Part IV. By Louis A. Duhring, M. D. Philadelphia: J. B. Lippincott and Co. 1878.

The diseases represented in this number of the Atlas are vitiligo, alopecia areata, tinea favosa, and eczema rubrum. We have already spoken in such commendation of Duhring's Atlas, that we almost fear to add more praise, lest our subscribers grow weary or skeptical. Nevertheless we must state that the plates are quite as good as, if not better than, any that preceded, and that the text is clear and reasonably complete. Such an atlas will be invaluable alike to the student and to the practitioner.

MR. WELLS'S LECTURES ON THE DIAGNOSIS AND SURGICAL TREATMENT OF ABDOMINAL TUMORS.

Mr. Wells has just delivered the last of a course of six lectures, on the Diagnosis and Surgical Treatment of Abdominal Tumors. They were given in the lecture-room of the Royal College of Surgeons, and were listened to by a most distinguished auditory, among whom may be mentioned Sir James Paget, Mr. Simon, Mr. Henry Lee, Mr. Savory, Mr. Erasmus Wilson, Mr. John Wood, Mr. Christopher Heath, Mr. Thos. Bryant, etc. Mr. Wells intended that they should embody all that was most useful in his unequaled knowledge of the great operations which he has done so much to popularize, and with which his name will always be identified. Mr. W.'s style on the rostrum is altogether conversational. His voice, which is not a strong one, was at times almost inaudible, but his hearers quite forgot this drawback, in view of the immense experience which was being told so conscientiously, with such entire forgetfulness of self, and with such rigorous accuracy. More than once his naivêté was touching, and the straightforwardness with which he recounted his mistakes was something beautiful to see. It would be well for us all if there were more Spencer Wells's in our ranks.

Mr. Wells stated that he would bring before them, in the plainest manner, the results of twenty years' exceptionally large observation and practice in a department of surgery which until lately has not received much attention; and endeavor to tell what he has learned about the diagnosis and surgical treatment of abdominal tumors, how he has learned it, the lessons he had been taught by mistakes and failures, the satisfaction which has attended increasing success, feeling that they might be of value to others in directing their thoughts and studies. He commenced by saying that he kept an accurate record of his cases, as he found it saved a great deal of trouble afterwards. After the usual matters of name, date, residence and family, come those of spinster, wife or widow; if married, how long, the number of children, and whether she has suckled them or not. Then comes the general appearance of the patient, whether her expression is anxious or cheerful, and the relation of her physiological age to her actual age. If older than the real age, she is a less favorable subject for operation than a woman who looks younger than she is. Then whether she is stout and well built, or spare and below par; if dark or a blonde. Patients with ovarian disease are apt to be pallid; while those who have uterine disease have a good deal of coloration about the face very frequently. The amount of hair, thought by some to be significant, he has found of no import. Then it is well to note the temperature of the skin and extremities; the amount of perspiration, if it occurs at rest or on exertion, if it possesses any odor or acidity. Glandular swellings, eruptions, ulcers, cicatrices and œdema, ought all to be noted, not forgetting the condition of the hair or nails. These observations often enabled the medical man to see directly what the case is likely to be. (The importance of such general survey was appreciated more once than now, when physical signs are almost everything; and it is good that Mr. Wells gave them the prominence they deserve, but do not by any means always receive.)

Then he proceeds from the general examination to the examination of the abdomen. This need not necessarily always involve putting the patient to bed, for the first or preliminary examination. The first thing to be noted is what can be *seen;* if there is any enlargement—if so, if it is general or local, if unilateral or on both sides; the absence or presence of fat, the state of the umbilicus, the dilated veins, and any lineæ albicantes that come into view. A brown streak down the median line is a common sign of pregnancy. Then what can be felt. Whether or not there be heat of skin; if the abdominal wall be tense or flaccid, any knots about it, or œdema. If there be any crepitation on moving the hand about, any feeling of friction, or movement of gas or fluid, producing a gurgle. Then by the application of both hands may be detected any sensation of fluid, or wave of fluid, or merely a sort of bag of jelly, termed the "elastic impulse." Or pulsation or a thrill may be detected, aortic or other. How far any movements are affected by deep expiration and full inspiration, or by sudden pressure, should next be noted. To inspection next comes measurement. Five of these should be taken: First, the girth at the umbilical level; second, a measurement from the lower end of the sternum to the umbilicus; then from that to the pubis, and then from the right and left anterior spines of the ilia to the navel. Then he proceeds to listen, and by percussion maps out the viscera, and notes if there be any change of size or position. The effects of altered position are to be noted, and the effects of respiration on any dullness. Auscultation tells of gurgling, of friction, or the sounds of the vascular system, even as to the fetal heart, about which he thinks the microphone may tell us much.

A tumor may not be detected; but if found, then comes the question, is it single, double or multiple; if the latter, whether the parts are separate or attached to each other, or to the abdominal viscera; then is it smooth, knotty, tense or soft, superficial or deep-seated. The amount of mobility is specially to be noted; if the mobility is general or partial, and if the walls are flaccid. Some guess even may be made as to its weight. It is well, too, to observe the effects of meals, vomiting, purgation or catheterism, on any tumor detected.

The pelvis and its contained organs are next to be carefully examined. The uterus should be examined, and its relations to the tumor, if any, noted down; also the presence of any tumor or growth betwixt the uterus and the rectum. Mere vaginal examination will tell little. but by placing the other hand at the time on the abdomen a great deal more can be learned, especially as to the relations of the uterus to the tumor as ascertained by movement of the uterus, as, for instance, whether the uterus itself is enlarged and moves with the tumor, or whether any movement that affects the cervix is simply communicated to the tumor. By passing the thumb into the rectum while the finger is in the vagina, Douglas's pouch can be examined, and the uterus may be felt even to its fundus. Exploration of the bladder has not furnished much information. Dilatation of the cervix uteri by a sponge-tent is sometimes desirable in order to permit of more thorough examination. Drawing the cervix uteri down will often furnish information as to what there may be below the brim of the pelvis. The method of Simon, of introducing the hand into the rectum, will at times furnish additional information to that given by the other means of examination.

Lastly come the subjective sensations ascertained by asking questions. The state of the digestion, of the nervous system, the catamenia, their character or absence, and the matter of leucorrhea and other discharges, are to be ascertained. The urinary organs require a little special attention, and the urine should be completely and carefully examined. Then come the history of the disease, the mode of life, previous disease or accident, the family history, and any moral influences affecting the patient. The first signs of illness or complaint; the aggravation of them by the catamenial periods or not; the time when a tumor was first discovered, its locality, and its rate of growth, whether regular or by fits; and if by starts, if these corresponded with the catamenia. Sometimes women are larger before their periods and smaller after them; and this often tells whether a tumor is uterine or not: then any movements felt in it are to be noted. Then the history of the tumor is to be inquired about. Aggravation of the symptoms, as increasing difficulty of breathing, distension of the abdomen, intercurrent febrile attacks, any local inflammation or peritoneal fluid, discharges, the effects of any accident, attacks of pain followed by discharge from the bladder or bowel, and flattening of the abdomen; the effects of tapping, and, if possible, the nature of the fluid,—all are important. On the varied data given, the diagnosis of a tumor, and what sort of a tumor, can be made, "which is fairly and reasonably accurate;" also an estimate of the prognosis, and the line of treatment to be pursued.

Then when the woman is on her back, if the dullness is in the middle of the abdomen, while around it and at the sides the percussion note is resonant, the strong probability is that there is a tumor. If the center be resonant, with bowel, and the dullness is at the sides, probably the fluid is free; but adhesions of the intestines backward often obscure a case. The changes of position affect free fluid more than a cyst. The wave of a cyst is more limited and not felt so immediately under the hand as in ascites. An ovarian cyst may contain acid or gas; but this is very exceptional. Tapping and the examination of the fluid so procured has been thought a certain means of ascertaining whether the fluid be free or not; but the discrimination of the various forms of albumen has not turned out so trustworthy as was once thought. Then the microscope may be employed to examine the fluid, and certain "ovarian-granule cells" have been described by Dr. Drysdale, who examined most of the cases operated upon by Dr. Atlee, of Philadelphia. Mr. Knowsley Thornton had described certain groups of large, round, pear-shaped or oval cells found in malignant tumors. Mr. Wells described a kidney-cyst which had been operated upon, where every one who saw the case was satisfied it was ovarian. The uterus and ovaries were found healthy. The operation had proceeded so far before the discovery was made that it was thought best to proceed with it. There was no great loss of blood, and the patient went on nicely till the fourth day, when she died. A history of repeated tappings had much to do with the confident diagnosis. In another like case, a certain amount of pointing in the right loin led to the formation of an opening, and the insertion of a drainage-tube with antiseptic precautions, and the patient was cured. He then described semi-solid.tumors, and after that solid tumors, each briefly.

Slow development is in favor of an ovarian cyst, while rapid formation suggests ascites. When a cyst does form rapidly, it is usually a single cyst. When the wave of fluctuation is broken by resistance in several directions, a multilocular tumor is practically certainly present. When there are bony projections or nodules, then the cyst is dermoid, or may contain bone, fat, hair, or teeth. When a distinct sulcus can be felt, both ovaries are probably affected. The contents of the cysts vary; and if there be a history of recurrent pyrexial attacks, the probability is there will be found pus, or blood and serum in the cyst. Solid tumors do not fluctuate. The elaborate pains once taken to ascertain the presence of adhesions are not now practiced, as the presence of adhesions is now known not to darken the prognosis much, unless the adhesions are pelvic. In the removal of the tumor the danger from hemorrhage from pelvic adhesions having to be torn is considerable, and the vessels are often not readily found. By careful examination of the pelvis, it can usually be ascertained whether a tumor is simply jammed down into the pelvis, or fixed there by strong adhesions. When the lower end of the cyst is glued to the bottom of the pelvis, and is not altered by change of position, then the prospect of operation is clouded.

Mr. Wells then exhibited a series of tumors — fibroid and fibro-cystic—of the uterus, which had been mistaken for ovarian tumors. Then three spleens, of which he had removed two, under the impression that they were ovarian tumors, until the operation was too far advanced to permit of retreat apparently; while in a third the diagnosis was made in life, but it was determined to chance the operation. This case went on well till the seventh day, when death ensued from clot in the heart. Cancer of various abdominal viscera has often been mistaken for ovarian tumor. An hytadid cyst of the liver had been knowingly removed successfully. A large aneurism was once tapped for a pelvic abscess. "That lady died upon the table in a very few minutes." Hematocele and pelvic abscesses are sometimes so large as to be mistaken for ovarian disease. One hematocele extended considerably above the umbilicus. Resonant enlargement of the abdomen, called "phantom tumors," disappear under chloroform. Pregnancy may coëxist with ovarian cysts. In one case, where "movable kidney" was diagnosed on the right side, there being ovarian disease on the left side, at the ovariotomy the "kidney" was examined; it was found to be the right ovary, with a pedicle a foot long. "It was held up under the right false ribs by the merest little film of adhesion." In one case, a tumor of the abdominal wall was first thought to be ovarian. The late Mr. Baker Brown removed it, with a piece of peritoneum the size of the palm of the hand, successfully.

As to the surgical treatment of ovarian cysts, Mr. Wells said we should discriminate betwixt the cases where the tapping does not save life, and those where the tapping may have done harm. Often the result is attributed to the tapping, which is really due to the disease. "It is very seldom, indeed, that tapping is in itself dangerous." Sometimes a blood-vessel is wounded by tapping, but this is "the rare exception to the general rule." A greater risk is the entrance of air and the setting up of putrefactive changes in the cyst. As to the mode of tapping, it may be performed either through the abdominal wall, the vagina, or rectum; and in any case, the tapping may or may not be followed by pressure; the opening may be permitted to heal, or a drainage-tube may be inserted, and with this may be associated the injection of iodine or some antiseptic fluid. The old method of tapping the patient seated on a chair had been abandoned, on account of the liability to syncope, for that of on her side near the edge of the bed. Here no bandages are required, and large cysts could be emptied without syncope. The "dry tapping" of Sir Astley Cooper was due to the insufficient length of the trocar, so that the cyst leaving the trocar the fluid escaped into the abdominal cavity, or at other times the cyst was never reached. By increasing the length of the canula, such mishap was avoided. He then described the form of instrument now in use by him, and also the modifications made by Dr. Fitch, of New York. After the preliminary puncture of the abdominal wall by the scalpel, the protected trocar is pushed in, and with a long piece of tubing attached to it, extending to a pail under the bed, the fluid drains away without splashing, "and there is no possibility of air entering the abdominal cavity." "The tube may be moved about as a probe to feel whether any tumor is free or adhering, and we can do that without the slightest fear of doing harm." Then it is quite easy, if desired, to wash out the cyst, fixing an ordinary enema-syringe to the end of the elastic tube, and either exerting suction on the fluid in the cyst, or injecting any antiseptic liquid, drawing it out again by reversing the action of the syringe. When the cyst is single, complete cure may follow the first tapping. In single cysts tapping should always be tried. "If the tapping be done with precaution, the risk is extremely small; the patient loses nothing, and may be cured: the mortality of ovariotomy, supposing it afterwards becomes necessary, is very little affected indeed by previous tappings." As to tapping by the vagina or rectum a curved trocar was necessary; and where solid cyst with a fluid lower portion fixed in the pelvis was diagnosed, it could be emptied by a trocar passed in near the uterus and coming out again at the rectum, and a drainage-tube might be connected with this trocar. As to the risk of permitting the air, it was better than fecal gases.

The practice of using pressure after tapping has entirely fallen into disuse. Not only is it productive of inconvenience, but it may lead to the formation of adhesions. The formation of an intraperitoneal opening in the cyst wall is now entirely abandoned. Sir James Simpson advocated the cutting out of a small portion of the cyst wall, and so letting the cyst retract and empty itself; this object can be more simply and effectually carried out by tapping. In very rare cases, the formation of a permanent opening through the abdominal wall or vagina may be indicated. But it is a tedious process; the patient remains for weeks, possibly months, in discomfort from the discharge, with all the danger of suppurative action with pyrexia. He has "seen patients cured in this way, but the cases have been few and far between." As to incision and drainage, it is rather the result of an operation which can not be completed than the product of design. "There are instances on record, apparently very hopeless, which have got well in this way."

In cases where tapping could be of little use, or has been tried and failed to give relief, then arises the question, "is this a case in which ovariotomy should be recommended to the patient?" And the sort of common-sense rule Mr. Wells has been in the habit of following is to say, "so long as this patient is moderately comfortable; so long as she can walk a mile, or for half an hour without much inconvenience; so long as she can get up and down stairs; so long as there is no great pressure upon any of the organs of the abdomen or pelvis, and she can breathe pretty well, and her heart is not interfered with, such a patient as that may be left to ordinary palliative treatment, with the usual attention to the general health." If the operation be delayed for a time, she should not be subjected to any bootless treatment; that it is quite useless to attempt, by iodine or bromine or lime, or by gold, or by any other remedy, to diminish the size of the tumor, or even to check its growth. All this is useless, and may be injurious. Then when the time comes that the distress caused is telling upon the general health, the question arises, "what is the prospect of success, if the operation be performed?" The patient does not care to know that the mortality is twenty to twenty-five per cent. "She wants to know what the probability of her own recovery is." Sometimes the patient puts off the operation until too late, or wishes to do so; at other times the patient desires the operation before the surgeon thinks it is justifiable. "The probable result of ovariotomy can be estimated with far greater accuracy by a knowledge of the general condition of the patient than by the size and condition of the tumor." A patient with a good constitution will probably recover, even if there is a very large tumor, with extensive adhesions; whereas if a drunkard, or with a feeble heart, unhealthy kidneys or a diseased liver, the operation is hazardous. "The size of an ovarian tumor alone has not appeared to me to affect the result very much," he says; and a patient accustomed to the life of a sick room bears the operation much better than one who is still able to follow her ordinary pursuits. If the tumor be solid, then its size becomes important on account of the large incision necessitated. Adhesions, except to the pelvis, do not affect the mortality considerably. The only positive contra-indication to operation is the presence of some other disease, which will be fatal. For the sake of relief, the operation is sometimes requested. If cancer of the ovary be suspected strongly, we should be content with tapping and removing any peritoneal fluid, and not attempt removal. On the other hand, cases have lived a long time after the removal of multilocular tumors, which were found to be malignant growths.

When the operation has been decided upon, several important questions arise. The place should be as healthy a place as can be found; the best room in the best house, in the best sanitary condition that can be procured. The bowels should be previously opened, and any abnormal condition of the urine corrected by citrate of potash or other saline. (Mr. W. cut this part very short, but in practice he is very careful about it.) The house and room should be so situated that the patient can be kept quiet after the operation. The table (it is useless to try it on a bed) should be near the window, so that the light falls on the table diagonally, taking care that the operator or his assistants are not in their own light. She is secured by a strap over the knees, so that she can not throw her legs about. The hands should be tied to the legs of the table. "If she have simply a night dress on, with a flannel about her shoulders, she and the bedding are completely protected by the use of a sheet of water-proof cloth, with a hole in the center, around which on the inside adhesive plaster is spread to the extent of an inch or an inch and a half. That is thrown over the patient and adheres to the skin of the abdomen, which ought to be previously well cleaned."

(To be continued.)

Clinic of the Month.

ON THE MODES OF ADMINISTERING MERCURY IN SYPHILIS.—Dr. John Duncan, Surgeon to the Royal Infirmary, in an article on the above subject, in the Edinburgh Medical Journal, August, 1878, says:

There are four principal methods by which mercury may be administered—by subcutaneous injection, by fumigation, by inunction, and by the mouth. About two years ago I read a short note before the Medico-Chirurgical Society concerning some experiments on the subcutaneous injection of mercury. Since that time a second series of observations has been made, and with results which have somewhat modified the opinion then expressed.

On both occasions the experiments were conducted with the bicyanide, the biniodide, and the albuminous solution of the bichloride of mercury, and in the latter series with the bichloride in simple watery solution, in solution from Savory and Moore's lamels, and in combination with morphia. Very little variation was made in the amount injected at one time. A few injections of one-twelfth of a grain were tried, and it was found that the amount made very little material difference in the local irritation. It may be regarded, therefore, as likely that when rapid mercurial action is desired, it is possible to obtain it in this way. But almost invariably, and for every preparation, one-sixteenth of a grain was used, and the observations I have to make refer to this quantity. The injections were made once in twenty-four hours until the gums were slightly touched, after which, according to circumstances, they were left off altogether, or used every second or third day.

I think I may say that one of the most striking results of these experiments was, that we were unable to detect any distinct difference in the action of the various forms of mercury either locally or generally. The observations of others had led us to expect that the bichloride would prove exceedingly irritating and unsatisfactory. We knew that various attempts had been made to overcome this by combining it with morphia, and by converting it into an albuminate. When, therefore, in the first series, we found that the pain and induration which these and all other mercurial preparations caused were very considerable, we did not venture to experiment with the pure bichloride. We had found that at the point of injection there arose a swelling sometimes as large as a walnut, painful, and often persisting for two or three weeks. This was less palpable and less painful if the injection were made deeply, and on the back, shoulder, or buttocks, than if it were simply subcutaneous and on the limbs; but the difference was probably due to the relative exposure to injury and the sensitiveness of the parts. Out of more than two hundred injections there was only one instance in which a tardy suppuration followed the little operation; but the condition of a patient with twelve or fifteen of these tender spots was anything but pleasant, and, in point of fact, a mutiny threatened, and the injections were discontinued. Our second series coincided with the first in so far as similarity between the actions of the various preparations was concerned. But the local irritation was much less. It seemed to be of trifling importance in what portion of the body, or at what depth, or with what preparation, injection was made. The pain and induration were always very small, and the maligned bichloride which we now ventured to try was very little worse than its neighbors. I have found it difficult to determine the reason of this difference in result; but I believe that it was due to the most scrupulous attention to cleanliness on the part of my house-surgeon, Dr. Kirk.

In all other respects the results of the observations were parallel. I shall not enter into details of cases, but sum up the advantages and disadvantages which appeared to attend this mode of using mercury.

Half a grain was the smallest amount which sufficed to touch the gums. A grain and a half was the largest necessary. The average of all the cases gave a little over fourteen injections as the number required to produce salivation. The precision with which mercurial action was produced was thus very satisfactory, and the total amount of the drug introduced into the system was exceedingly small. Gentle salivation could afterwards be kept up with very great certainty by injecting every second day, with slight variations in the sense of greater or less frequency. Only in one instance did the remedy seem to produce disorder of the stomach and bowels, but as is invariably the case with mercury, lassitude and anemia manifested themselves if the cure proved tedious. On the other hand, I do not think the therapeutic effects differed from those of other modes of exhibition, and there is no doubt that patients strongly object to the continued use of the needle and the production thereby of a number of spots, which, if not exceedingly painful, are yet tender on pressure.

Fumigation.—In directing our attention to mercurial fumigation we did not fail to try various forms of apparatus. We found that for practical purposes the best was a simple porcelain dish divided into two compartments, one containing the mercury, the other an ounce or two of water. This is placed on a tripod with an ordinary spirit lamp below it. Along with the patient it is enveloped in blankets or tarpaulin, being covered by a large cage if the patient be in bed, or by the chair if he be seated. The water is not essential to the process, but seem to render it more comfortable, and aids the production of perspiration. Calomel is, in all respects, the best preparation of mercury that can be used.

We thought it well, in the first place, to endeavor to estimate the value of fumigation alone as a means of introducing mercury into the system. If twenty grains of calomel be volatilized, and the patient be exposed daily to its influence for twenty minutes, no signs of mercurial action are produced;

and even though forty or sixty grains be used, the gums are touched in comparatively a small proportion of cases, and after a long time. The baths were given in the general ward. The patient was absolutely nude, and was put to bed afterwards for an hour or two.

If, on the other hand, the bath be administered in the manner recommended by the advocates of this method,—that is, if the patient be directed to take each time a few inhalations of the fumes, if ablution be forbidden and the underclothing impregnated by the fumes be retained in contact with the skin, then with only twenty grains of calomel salivation may be produced in most cases with considerable rapidity.

The evident conclusion from these experiments is, that while the quantity of mercury absorbed by the skin is insufficient to produce palpable evidence of its presence in the blood, yet so much is thereby taken up as to make it easy to produce this action by other means, such as inhalation. We had incidental proof of the risk of inhaling too freely, and so of the impropriety of attempting to introduce mercury by the lungs alone. One patient, who, contrary to orders, kept her head under the blanket for several minutes (she said as long as she could) suffered in consequence from a very severe attack of bronchitis. No doubt the few breaths which are necessary to the method may be drawn with impunity, at least, so far as evident injury is concerned; but it is a subject for consideration whether administration by the mouth might not be advantageously substituted for inhalation. We found that the exhibition by the mouth of a teaspoonful of the liquor hydrargyri bichloridi twice or three times a day, produced salivation with great certainty and rapidity when combined with mercurial fumigation, although that quantity is very slow of doing so when given alone.

The therapeutic effects of mercurial fumigation are very good. A certain class of cases improved, I think, more rapidly in this way than under any of the other common modes of treatment. It apparently acts by three distinct processes—the introduction of mercury into the system, the production of diaphoresis, and the topical effect of the remedy. Of patients who come into the Lock Hospital, there can be no doubt that a large number derive benefit simply from the improved dietary, greater cleanliness, and attention to the primæ viæ. In a considerable number of cases I have limited the additional treatment to the daily vapor bath, and the benefit derived from the copious perspiration thus induced has often been very striking. Experience, moreover, would lead me to believe that the action of mercury, however it be administered, is much improved, both in hospital and private practice, by some such means. The Turkish bath, two or three times a week, is admirable, but for the risk of catching cold after it, an objection, however which can not be raised to the daily vapor or hot-water bath at home. But the method of fumigation has yet another advantage. In the experiments which we made without inhalation we were struck by the satisfactory progress of our patients. I was not inclined to believe that the action was purely local, because I found that sore throats, iritis, and other manifestations of syphilis which did not come in contact with the vapor, improved under the treatment; but I felt certain that it did produce a topical effect. Of all the forms the affections of the skin are those which receive benefit most speedily, and in general eruptions I have frequently noted that those portions which were most exposed to the mercurial fumes were precisely those which most speedily disappeared. In one case of squamous syphilide affecting the body and scalp, the disease disappeared on the body before any improvement whatever had shown itself on the head. Such an effect, indeed, one would be prepared to anticipate from the well-known beneficial action of mercurial unguents, and lotions, and powders, in syphilitic diseases of the skin. . . . .

There only remains for me to say a word as to the preference to be given to one of these modes of administration over the other. I think there can be no doubt that the majority of cases in private practice, when they require mercury, are best treated by the oral method. If small doses be given in the first place, and gradually increased in frequency till the desired effect be produced, the chances of gastric or intestinal irritation are easily avoided, and salivation can be prevented by the use of chlorate of potash, or alum wash after each dose. The patient is thus permitted to follow his usual avocation, and the remedy may be contined, with proper precautions, as long as may be needful. With the other methods it is difficult, from their inconvenience, uncleanliness, or disagreeableness, to induce the patient to persevere sufficiently long; and one strong objection to the routine use either of mercurial fumigation as practiced by Mr. Lee, or inunction as practiced by Sigmund, lies in the necessity for confinement to the house, and even for a considerable portion of the day to the recumbent position. Exercise in the open air, a nourishing dietary, and even a certain amount of stimulation, especially in chronic cases, are of great importance, whatever be the way in which the mercury be given. I have already said that free action of the skin is very desirable, and the occasional use of the vapor bath is a good method of securing it. In obstinate cases of skin affection, an occasional mercurial vapor bath may advantageously be added, and in hospital cases mercurial fumigation is probably the most efficient plan, at all events, to begin with.

I do not think that inunction and subcutaneous injection hold out sufficient inducement to employ them, otherwise than as exceptional measures in cases of peculiar weakness or individual idiosyncrasy.

PHIMOSIS AS A CAUSE OF RUPTURE IN CHILDREN.—Dr. J. A. Kempe, in the Lancet, July 27, speaks thus of the relation of phimosis to rupture:

Phimosis in children is a common occurrence, and numerous ill effects can undoubtedly be attributed to it—namely, incontinence of urine, fits, and other spasmodic affections, masturbation resulting from irritation set up by retention of smegma, balanitis, and, later on in life, cancer of the penis. Professor Sayre, in his work on Diseases of Joints, devotes a chapter to phimosis as a cause of talipes and other paralytic affections. Ziemssen, in an article on "Pressure Points," alludes to the pressure of a tight prepuce on the glans as a cause of paralysis. Lately Mr. Owen has quoted some cases of eczema caused by irritation of dribbling urine, the result of a long or adherent prepuce. He also says, "In cases of umbilical and inguinal hernia it is well to look to the size of the urethral and preputial orifices."

The organ, however, that chiefly pays the penalty of this congenital imperfection is the bladder, and Mr. Bryant, in "Surgical Diseases of Children," says: "I have seen this simple condition of the penis produce every degree of irritability of the bladder, even to hematuria, also retention from the same cause, also priapism." Hernia, too, is frequently met with in children. Malgaigne says one in every twenty-one children has rupture. The causes of hernia generally, whether occurring in man, woman, or child, are divided into two main divisions—(*a*) exciting, (*b*) remote; the latter consisting in imperfection of the abdominal parietes themselves, the former in circumstances which exercise a more than usual compressing force on the viscera which they contain. As an exciting cause, *straining*, either violent or continuous, holds the foremost place. Now straining may be brought about in a good many different ways—coughing, crying, etc. Straining from difficulty in micturition and evacuating the contents of the bladder, I find, has been alluded to by several authors—*e. g.*, Erichsen, Liston, Sir A. Cooper, Spence, Pott, Arnaud, Lawrence,—all of whom mention it in connection with stricture, disease of the prostate, etc., in adults.

I have been unable to find any mention of difficulty in micturition as a cause of hernia in children, and the coëxistence of phimosis and rupture seems hitherto to have escaped notice (except the allusion made by Mr. Owen, *vide supra*). The frequency, however, of phimosis and rupture together, as it occurred to me here, induced me to watch closely and see if it was anything more than a simple coincidence. I therefore

AGE.	Under 6 months.	From 6 to 12 months.	From 12 to 18 months.	From 18 months to 2 years.	From 2 to 2½ years.	From 2½ to 3 years.	From 3 to 3½ years.	From 3½ to 4 years.	From 4 to 4½ years.	Totals.
Rupture	15	5	5	1	1	4	0	0	0	31
No rupture	4	3	2	3	0	4	0	1	2	19
Total	19	8	7	4	1	8	0	1	2	50

took fifty consecutive cases (not selected ones), and found that out of fifty cases of congenital phimosis thirty-one had rupture, in five cases there was double inguinal hernia, and in many of them umbilical hernia as well (umbilical hernia *alone* has not been counted). In none of these cases was the rupture noticed at birth; the earliest was noticed three weeks after birth (here the prepuce was so tight that it was with great difficulty that the child could micturate at all), the latest two years and a half. In all of these cases circumcision was performed; in five the rupture never came down after the operation, and all have been much benefited.

It can not, then, be unreasonable, in the face of these facts, to suppose that a long and tight prepuce may be a cause of rupture in children. The sequel of events is probably as follows: the abdominal parietes are naturally weak in children, which renders them less able to resist impulses which project the viscera against weakened parts. Here, then, is a remote or predisposing cause. The exciting cause is, I think, readily supplied by the frequent and continued efforts that the child makes to overcome the obstruction offered by the tight prepuce, and by the cries uttered consequent on pain caused in making these efforts.

Notes and Queries.

MEDICAL HEROES.—Edmund Burke observed that times of great public mortality are times of great immorality, referring in illustration to the history of the plague in Athens and in London. However this may be, we see revealed in great public distress some of the most generous and heroic qualities of men. A plague smites many of our southern cities, and not only a continent opens its hands to supply the wants of the sufferers, but from beyond the ocean some of the old world's great cities send their benefactions. Not only so, but scores of physicians eagerly go to help their toiling, weary brethren, who are struggling unequally with the fell disease—go even when many of them thus doing in all probability enter the very jaws of death. All honor to these brave men. They reveal the true medical character, and win laurels not for themselves alone but for the profession itself and for our common humanity.

One of the first to go to Memphis upon this noble work was Dr. Renner, of Indianapolis; there, too, are Dr. Easley, of Arkansas, and Dr. Dowell, of Texas—men whom the profession know so well. We mention these gentlemen because we happen to be acquainted with them. We shall be glad to publish a complete list of the medical heroes of the yellow fever epidemic of 1878.

So far too as we have been able to learn, the medical men of the smitten cities—chief among which are Memphis, Vicksburg, Granada, and New-Orleans—have bravely remained at their posts, and many of them sacrificed their lives to duty. It was regarded as the grandest utterance of Roman emperor, Cæsar should meet death standing. Surely, if doing be grander than saying, these medical heroes who die meet death standing, standing at the post of duty, and clothe their last hours with imperishable grandeur.

Wood's Library of Standard Medical Authors.—The well known medical publishers, William Wood and Co., New York, propose commencing the publication January, 1879, in monthly volumes, standard medical works, each volume containing two to three hundred pages, and to cost only one dollar. Six of these are announced, and the selection is good. These works are to be sold by subscription only, the subscription to be required in advance. The project is well worthy professional support.

Now we have given William Wood and Co. this first rate notice—they have sent requests to editors of medical journals to do them such favor. But, "turn about is fair play," as the boys have it; and therefore let Wm. Wood and Co. publish in their periodicals notices in behalf of the different journals which comply with their request. We shall expect Doctors Shrady, Mundé and Castle to give most complimentary notices of the American Practitioner at the earliest opportunity.

It may be questioned whether wealthy publishers especially are quite justifiable in soliciting gratuitous advertising. Some time since we received from another New York firm, manuscript marked "editor's copy," containing a notice of some works the house was about to publish. We let this copy appear in the pages of our journal, but never to this day have seen the books referred to.

Shortly after this gratuitous advertising, there came from a Philadelphia publisher—a publisher in a small way—a printed notice of a book he was about issuing, and appended to the "puff" a statement that editors who published this notice should have a copy of the book. The notice was thrown into the waste-basket, and of course that book never came to hand.

But we believe better things of William Wood and Co. We are confident that they mean to reciprocate, through the three medical periodicals under their control, the courtesies they are now soliciting from the other medical journals of the country.

LECTURES ON ALCOHOL.—Dr. D. W. Yandell, of Louisville, the editor of the American Practitioner, has been spending some time in London this season, and has been received very warmly on the score of his own personal qualities, not less than of his position, reputation, and hereditary claims to professional esteem. Among other excellent qualities, he has that of dry and discerning humor, and his "letters home" to the Practitioner and the Louisville Medical News are likely to be very interesting, especially if he speak his mind without too much reserve. Among other things he has arrived at the conclusion that Londoners are a little over-lectured just now on the subject of alcohol. Returning home from Dr. Richardson's lecture, and finding a card for the similar lecture of Dr. Alfred Carpenter, he writes home:—"The politeness of the senders of the card will cause me to accept the invitation, and, when I have heard the annual orator, return at once to my room and imitate Rip Van Winkle by 'swearing off.' I am determined upon that. I think I know when I have had enough of a good thing. The pledge is already written. You will observe, however, that, like most of the copartnerships in this country, it is 'limited.' It reads—'I hereby bind myself, on my honor, to take during the remainder of my stay in London no more alcohol whatever [in the form of lectures].' This I shall sign next Tuesday morning." (British Medical Journal.)

TEMPERANCE AND THE MEDICAL PROFESSION.—The National Temperance League of Bath, Eng., recently invited the British Medical Association convened at Bath to breakfast with them. About one hundred and fifty of the members attended, and among the interesting remarks by various members were those of Dr. Fothergill, who said "he felt grateful to Mr. Bowly, and other workers in the temperance cause, for having forced the question of the use of alcohol upon the medical profession; and it might be said that the profession had taken the question up in a spirit of true earnestness and of genuine inquiry, and had done much to further the spread of the disuse of alcohol throughout the land. They must recognize the fact that they could only hope successfully to reach the lower grades of society by those of the upper classes first setting the example. For himself he was a teetotaller eighteen out of twenty-four hours. He disapproved of the use of alcoholic liquors during the hours of business. He was sorry to say many medical men recommended their patients to use alcohol, not because they thought it necessary, but because they knew that if they did not do so their patients would go to other practitioners who would."

IS DR. HAMMOND REFERRED TO?—The North Carolina Medical Journal for August has a letter from New York, from which the following is extracted:

"And now we hear that in medical circles in North Carolina, it is reported that a prominent neurologist of this city humbugged one of your statesmen from the Blue Ridge region, by suspending a rotating needle before him; if it stopped with its point towards the patient the anterior part of the brain was diseased, whereas if the butt end pointed towards him it demonstrated that the posterior lobes were affected. Now, those who call themselves physicians do but expose their own ignorance, if nothing worse, in repeating this silly story, for they should know the 'needle' has reference to Lombard's delicate thermo-electric apparatus which indicates with great precision the differences in degrees of temperature of various parts of the body, and is used by eminent men in this country and Europe to locate hyperemia, and as an aid to diagnosis."

ABSENCE OF EXTERNAL ORGANS OF GENERATION.—Dr. G. C. Ogle, of Baltimore, in the Maryland Medical Journal for September, communicates this anomalous case:

The subject of this report I have known from her infancy. She is now twenty-eight years of age, tall, but delicately made; sprightly and fond of society. She presents all of the appearances of a well developed woman, mammæ well formed and general department that of a woman in full possession of perfect generative organs.

I have not had an opportunity to examine this lady since she reached maturity. The following condition was observed at the time of last examination some years ago: There was an entire absence of all of the external organs of generation, and the parts were completely sealed, presenting the appearance of the perineum; no meatus existed and micturition took place through the umbilicus, the urachus not having closed at birth; there being no sphincter at the umbilicus, the urine passes involuntarily and is restrained by wearing a compress. I have not had an opportunity of making a digital examination per rectum to ascertain whether there is a uterus, as she is a modest and refined lady both by birth and education, but believe there is, as she has hemorrhages from the lungs, which recur at irregular intervals, and have done so since she reached maturity, which I believe to be vicarious in place of the catamenia, for which there is no outlet. This lady had a first cousin similarly deformed, who died of consumption before she reached maturity. I had no opportunity to examine this person.

Anent Sidney Williams.—The Detroit Lancet of August has a letter from a doctor who has been deceived and defrauded, he alleges, by Sidney Williams, and states that S. W. freely used the name of one of the editors of the American Practitioner as a reference. Mr. W. has no indorsement from either editor. Several months ago he, upon his own volition, solicited subscribers for the journal, but was not at any time authorized to receive subscriptions. We regret that any physicians have trusted Mr. W. to their hurt by an unauthorized use of the name of the editor referred to.

Erratum.—In Dr. Lockridge's article on Spinal Irritation, in our July number, on page 7, commence the fourth line from the top with the adverb "not," making it read "*not* the *bruit de scie*, or the filing or rasping bruit," etc.

A QUESTIONABLE UTTERANCE.—In the Neurological Correspondence of the Journal of Nervous and Mental Diseases, July, 1878, the following language is attributed to Dr. William A. Hammond:—"He," *i. e.*, Dr. Hammond, "is in favor of punishing insane people just as he would a tiger who went about destroying people. If a lunatic had a homicidal mania, he would hang him." Let philanthropists rejoice that Dr. Hammond is neither a law-maker nor in charge of a lunatic asylum.

BIBLIOTHECA MEDICA.—In a neat octavo volume of more than two hundred pages, Robert Clarke and Co., the well known publishers and booksellers of Cincinnati, have given a list of twenty three hundred books, American and British, on medical and connected subjects. The list is classified—the different works being given under three hundred and eighty distinct heads; and besides the catalogue tells place of publication, date of last edition, size of volume and price. The book is a marvel of intelligent industry, and will be of great value to the book-buying men of the profession. Mr. Clarke has been assisted in the preparation of this work by Dr. Thomas C. Minor. The price of the volume is twenty-five cents.

HAVE YOU A GOOD MEMORY?—In the Clouds of Aristophanes, one of the characters makes the following reply to the question as to whether he had a good memory: "In two ways, by Jove. If anything be owing to me, I have a very good memory; but if I owe, unhappy man, I am very forgetful." We wish to ask what sort of a memory some of our subscribers have? We are sure, these referred to, so far as their subscriptions to the American Practitioner are concerned, must be unhappy men, because "very forgetful." Let them make themselves happy, and others happy too, by remembering and remitting. There are thousands of dollars due the American Practitioner, and may all delinquents speedily liquidate these claims.

THE AMERICAN PRACTITIONER.

OCTOBER, 1878.

Certainly it is excellent discipline for an author to feel that he must say all that he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than anything else.—RUSKIN.

Original Communications.

TRUE AND FALSE EXPERTS.

BY J. W. GORDON, M. D., LL. D.

(Continued from page 141.)

It has been already said that society has a right, upon just terms, to the use of all the knowledge, learning and ability of its members. Through its organ, the state, it may, in emergencies that require, fairly demand them. The members of the medical profession are subject to this common law, and the same conscription may reach them, that, from time to time, reaches the professors of all other special experiences and knowledge. It has a right to ask him that knows to instruct, and him that sees to lead it, where the common knowledge and sight fail it. There is no department of the government of any civilized state, that may not, at any moment, be forced to ask the aid, and follow the guidance of some man of special science, or fall short of its duty. The medical man is, perhaps, more frequently needed than most other specialists; and touches, in the exercise of his functions, in public administration, quite as many and important relations and interests as any other.

It will scarcely be denied by one who has considered the subject, that there ought to be in every locality a number of medical men, learned in the science, and experienced and wise in the art of medicine and surgery, sufficient not only to meet all the wants of the people in private practice, but also all the just and necessary ends of the government. Such a body of doctors would, in the conscientious and fair exercise of their faculties, regard it as a part of their professional duty to thoroughly study and determine the medical topography of their respective fields of practice; ascertain the diseases due to the peculiarities of the place, as well as the modifications of others arising from the same influences; and generally to fix upon a well defined basis of observed facts all the conditions of the neighborhood tending to health or disease, as well as the modes of their operation. The results of such a study in every vicinity would be, from time to time, brought together in the several county, district and state medical societies; and out of them would at last be constructed, by some patient and competent worker, a true medical topography of the entire state; and the local and permanent influences affecting the public health, in every part of the state, would become a portion of the permanent and certain knowledge of the profession. Such a knowledge, added to the doctrines of health and disease, as taught by our schools of medicine, would prepare the doctor more readily and thoroughly to estimate the nature and force of any temporary adventitious morbific causes which might arise in his vicinity, whether resulting from natural or human agency. In this way, the general and constant conditions of life and health, or of sickness and death, would become to the medical investigator the fixed measure of the particular and transient conditions affecting the same. Without having acquired some knowledge of these uniform and established conditions constantly operating to impair health and destroy life in his field of practice, and making it the basis of his special investigations in regard to every particular case, the doctor may intend well in his effort; but, if successful, and as far as successful, he will be debtor to chance rather than to science and skill.

So much has been said with reference to the preparation necessary to the function of the investigator or inspector, which is the first relation, that as expert, the medical man may sustain to his government. In the improvement of the state, and the development of its resources, whether under the immediate exercise of its authority, or by corporations or individuals, it not unfrequently happens, unavoidably or negligently, that conditions are created which are, or are supposed to be, injurious to the health of the people where such conditions exist. It then becomes necessary to determine what may be the truth in regard to the subject. A commission of medical men is appointed and charged by public authority with the investigation of the matter. Their decision involves the gravest consequences,—the public health on the one hand, and the progress, and, it may be, the existence even of a great public or private enterprise, on the other. Such commissions are common in all civilized and enlightened lands. Our state has called them into existence, and been guided by their decisions in matters of the highest importance. Thus, in the construction of the Wabash and Erie Canal, a vast reservoir was created in Clay county; and, though covered with forest and vegetation, it was yet filled with water. Loud complaints were soon made against it, as a great public nuisance, ruinous to the health and dangerous to the lives of the people in its neighborhood. A commission of learned physicians was appointed to inspect it, investigate the truth of the complaints of the people, and report the result of their labors to the governor. An inspection and report were accordingly made; but, before further action was taken by those in authority, a mob of citizens cut the embankments and drained the reservoir. The object of referring to this instance of medical inspection and investigation here, is not, however, to exhibit the result; but, on the contrary, to illustrate the nature and importance of the public duties to which medical men may at any time be called; and so to enforce, by an example, the necessity for that antecedent preparation and knowledge of special topography with respect to health and disease, which can alone prepare them for their adequate performance. The commission, in the foregoing case, could not have taken one intelligent measure in pursuit of the object of their organization, without first settling, at least in a degree, the sanitary condition of the locality of the reservoir, prior to its construction, so far as that had depended upon constant local causes. After this condition and its causes had been ascertained, the change produced upon the health of the neighborhood by the reservoir could be investigated and determined with some certainty. The importance, too, of having the antecedent condition of the place ascertained before the necessity arose for the labors of the commission, can not be overestimated; for, after the public mind had become excited and inflamed by the construction of the reservoir, and the evils supposed to arise from it had become known, every means of ascertaining the truth in regard to the state of health that went before it, would be impaired or lost. And the same must, in a measure, be true in other cases involving similar questions. After the creation of a nuisance, real or imaginary, in any community, the evils of the past are forgotten, while those of the present are almost always attributed to it and exaggerated. The necessity of a State Board of Health becomes apparent in the presence of such facts. One, or a few men in a state, however great, public spirited, and laborious they may be, are not equal to the work of determining its medical topography and ascertaining the local and abiding forces that operate to sustain or destroy health and life therein. It must be the task of all, in pursuance of a common design and actuated by a common spirit. When it shall be attained, however, then can society act intelligently and efficiently under the direction of its doctors in the removal or diminution of the natural causes of disease, and the abatement of every adventitious nuisance. The state, acting upon the maxim,—*Salus populi suprema lex* *est*,—must, sooner or later, employ the medical profession in the pursuit of this great object, and persist in it until its final and complete attainment. But, even if the state in its ordinary administration should still further neglect so great an object of social organization, may we not look to the profession of medicine itself to accomplish it without aid, for the benefit of the people, and for its own perfection and glory?

But the medical man is more frequently called upon as an expert investigator of the special facts of cases involving the infliction of a private injury to one person by another, or the commission of a public offense, than of the more general conditions and circumstances affecting the public health in a given locality. Here, again, he must proceed as before, from the general and constant facts of the situation, and those immediately preceding it, to such as are special and transient. If he is to determine between a surgeon and his patient, whether the *latter* has been injured by the malpractice of the *former* in the treatment of a broken leg, it is necessary for him to know, first, what was the condition of the limb before it was broken, the age, state of health, and constitutional peculiarities of the patient, and very many like matters, any one or more of which, when understood, may be sufficient to account for all the injury laid at the door of the surgeon. It is no purpose of this paper to do more than suggest these antecedent and attendant conditions of the fracture, which in no way depend on it; but which by their own force and tendency may have retarded, marred, or altogether prevented a cure, which, with the same treatment, under different conditions, would certainly have been effected. No man ought to undertake the examination of any such case, with a view to becoming a witness on the one side or the other, without first resolving to determine every condition preceding and concurrent with the injury and its treatment; and whether, and how, and how far the same was favorable or unfavorable to its complete cure. When these are ascertained, as far they may be, he may then proceed to consider the limb itself, and how, and to what extent it falls short of being in as good condition as before the injury. Having settled these matters, he is prepared to hear an account of the particulars of the treatment; and of any accident or circumstance that may have tended to prevent or secure its complete success. Here will be the proper place to consider any willful or negligent behavior of the patient that may have injuriously affected the treatment. No fact should be overlooked in the account, for the opinion which the expert witness is to give upon the facts ascertained by the expert investigator will derive its force entirely from them. Should any material fact be omitted, its absence may lead to a false conclusion, and become the foundation of a false verdict and an unjust judgment. While, on the other hand, should any immaterial fact find its way into the statement, which leads to the conclusion of the expert witness, it may readily be eliminated by a judicious cross-examination; and even if it is not so eliminated, it ought in no wise impair the weight of the opinion, provided it is proved. The only ill consequence resulting from the introduction of an immaterial fact into the case, on which the opinion of an expert witness is taken, is the danger of failing to prove it. If that should be the case, and the cross examination fail to disclose its immateriality, then the court or jury may properly say that, as the case on which the expert's opinion rested was not entirely proved, the opinion itself is worthless. The expert investigator should, however, always observe and preserve every fact which the most comprehensive view of the whole case may regard as material. If any fact so embraced in the case turns out to be without value, it may be sifted out by an adequate cross-examination. Its absence, if material, can not be so readily supplied; indeed, not at all.

It sometimes happens that those not well instructed in medicine, involve themselves in strange contradictions from not knowing the value and relation of facts; and, at others, from not preserving all the facts. A case happened a few years ago in central Indiana, illustrating this observation in both its branches. A young married lady was thrown from her horse, in the fall breaking both bones of her right leg, eight or ten inches above the ankle-joint. She was pregnant, being about five months gone, at the time of the accident. A surgeon was called, who adjusted the bones of her limb, and applied a splint, remarking, in the presence of witnesses, at the time, that it was too short. Next day he brought another splint which, trying upon the limb, he declared to be too long; and added, that he would have to make the first do. He did; but when his patient got about, it was found that her leg was both shortened and crooked—the foot being turned inwards, and the limb at the seat of the fracture bowed outwards. She limped badly—in short, was a cripple for life. Dissatisfied with the result, she sued the surgeon. He made a vigorous defense; but failed to embrace in it all the facts of the case. He relied, in his opening to the jury, upon two facts or conditions, existing before the fracture, and during the treatment. These, it was insisted, counteracted and thwarted the treatment, producing the deformity and lameness that he did not deny existed. These sinister conditions were, scrofulosis and pregnancy. But even his own experts admitted that pregnancy, during its existence, counteracted and held scrofula in abeyance. And then it was satisfactorily proved that the fracture had speedily and completely united. Neither scrofulosis nor pregnancy had prevented a solid bony union. Besides, she had been delivered at full time of a well-developed child, perfect in all its bones. The grounds of defense were contradictory; and for such a result the defendant was utterly unprepared. He abandoned it; and in the midst of the contest set up another. It was now insisted that the cure was as perfect as ought to be looked for or required under the best treatment and most favorable circumstances; and, at all events, that, if anything was wanting in the result, it was due to her own negligence in getting up too soon, and walking on the limb before the union was perfect. It was the misfortune of this defense to have to face that first relied on, and to have no facts of its own to support it. It was seen to be a most unfortunate shift; and the jury did not believe it to be true. The facts of the case had not been all collected and submitted to defendant's expert witnesses, before the line of defense was adopted; and the defendant, as a consequence of his neglect, had a verdict rendered against him for $4,750. This verdict, it is true, was set aside, and the case ultimately compromised; but the case nevertheless illustrates the necessity in every instance of collecting all the facts, and carefully arranging the prosecution or defense, so as to harmonize it with them all. If counsel have not received a medical education, they should never adopt a theory of their case, whether in the prosecution or defense, without first having carefully collected every fact that, in any conceivable view, may become material, and submitted them to wise experts who know the relations and value of each, and taken their judgment upon what may, or may not be the conclusion to which they lead.

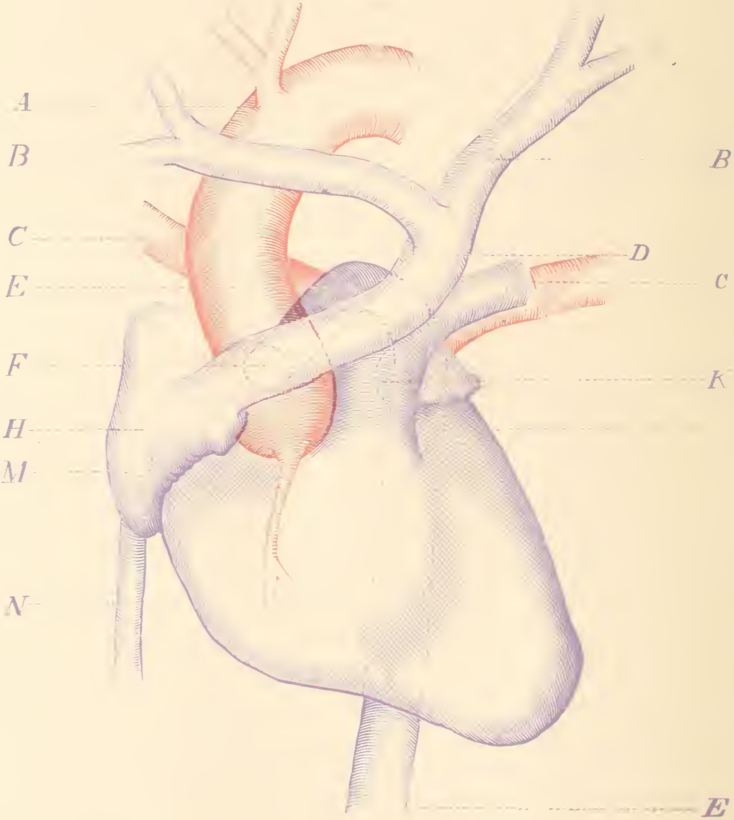
It is not the purpose of what is here said to give directions for making inspections or investigations in any department of professional duty. Medical men are better informed than to need it. They understand the scope and details of such matters already. It is only necessary to awaken their attention, and stimulate their diligence, to make every investigation thorough and complete that may be committed to them. And this is necessary; for in these respects the public trials for homicide, infanticide and abortion constantly furnish many illustrations of lazy negligence, and now and then one of incompetency and ignorance. There is nearly always manifest in these cases an inexcusable want of thoroughness; and many an offender owes his acquittal of the highest crime known to our code to the insufficiency of a post mortem examination. A case occurred in this county within a year past that may serve for illustration. A woman — the wife of a poor laborer—died one Sunday evening suddenly, and with all the symptoms of poisoning by strychnia. She was up and about the house until seven o'clock; but, being a sufferer from neuralgia and accustomed to take medicine to mitigate her misery, she received from her husband and took a dose of a brownish mixture, which he said he had received from a druggist, who called it a neuralgia-powder. It was dissolved in water and drunk from a common tumbler. Within half an hour after taking it, she was seized with spasms and all the symptoms of poisoning by strychnia. There was no cessation of these symptoms for two hours and a half, at the end of which time she died. The post mortem examination was well enough as far as it went, but did not extend to all the vital organs—spending itself on the stomach and bowels, liver, lungs, heart and nervous centers. Beyond these it did not extend. The kidneys and pelvic viscera were not examined, although her regular medical attendant testified that she had been a constant sufferer from disease of both. Here was ground for an hypothesis that death resulted from natural causes; and expert testimony of high character gave it great probability. But the great failure in the post mortem proceedings adopted to prove the cause of death, was not due so much to any omission in the post mortem examination proper, as to the measures taken to determine whether the deceased had taken strychnia or not. The evidence showed that the husband had bought both morphia and strychnia the same day. The description given by the deceased of the taste and immediate effects of the potion tended to prove that it contained strychnia. All subsequent symptoms, the mode of death, and post mortem rigidity of the body, went to establish the same fact. But no time was allowed, or taken by the chemist who undertook the analysis of the stomach and its contents with other parts of the remains, at all adequate to the accomplishment of the important duty. The result corresponded with the hurry. No strychnia was discovered, while morphia was, thus adding another element of confusion to the already tangled tissue of the case. The analysis not only fell short of clearing up the difficulties of the case, failing to confirm the conclusion of the husband's guilt, to which the other circumstances strongly tended; but by its negative result, added some grains to the doubts in his favor.

But the chief and crowning failure in point of thoroughness occurred in the use made of the tumbler from which, it was insisted, the fatal draught had been taken. This was produced at the time of the coroner's investigation by the husband, who said it was just as left after the medicine was taken; and called attention to the brownish stains still thickly adherent to its inside, and said that that was the color of the medicine he last gave his wife. It seems that it never occurred to the coroner, or any one else in connection with the prosecution, to rinse the tumbler, and analyze the washings; for the only use made of it by the prosecution, was to exhibit it to the jury, in connection with a phial of muriated tincture of iron found in defendant's house; and, without any proof of the fact, insist that the defendant had mixed enough of that tincture with the strychnia which killed his wife, to discolor and conceal it. The defendant's counsel, after satisfying himself, while the trial was going on, that the brownish stains on the inside of the tumbler contained a large proportion of strychnia, in his final argument to the jury held up the discolored vessel and told them that, if, as contended by the prosecution, the dose given from it had contained strychnia, the fact could have been readily settled by rinsing it, and analyzing the washings. There would have been no difficulty in forever settling the question by such a procedure. The failure to adopt it had left the case fairly exposed to just criticism and grave doubts; and so the defendant ought to be acquitted. In fact, to convict him upon such evidence, when so many sources of doubt that might readily have been removed were left standing, by the mere negligence of those acting for the state, would be to establish a precedent dangerous to the citizen, and fatal to the fair administration of justice. The jury found the defendant not guilty, and he was discharged. It is proper to add, that a subsequent analysis of the rinsings of the tumbler gave crystals of strychnia sufficient for hundreds of satisfactory tests; and, therefore, quite sufficient to prove that the wife had taken the poison. It is unnecessary to enforce the moral illustrated by the case. It is an old one, but vital in all pursuits whether public or private:—Diligence in business.

INDIANAPOLIS. (To be continued.)

EXTROPHY OF THE HEART.

(Dr. Hodgen's Paper.)



A.—Aorta. B B.—Venæ Innominatæ. C C.—Pulmonary Veins. D.—Vena Cava Descendens. E E.—Vena Cava Ascendens, opening into Vena Cava Descendens at F. F.—Opening of Ascending V. C. H.—Right Auricular Appendix. K.—Pulmonary Artery. M.—Opening of Hepatic Vein into Right Auricle. N.—Hepatic Vein.

EXTROPHY OF THE HEART.

BY JOHN T. HODGEN, M. D.

Mrs. ——, a German, at term, attended by Dr. Bernays, in February, 1864, gave birth to a healthy living child. The heart was found entirely outside of the chest, the vessels passing from the chest through an opening in the median line. The heart was not covered by pericardium, and stood with its apex pointing forward, downward and to the left. The organ pulsated rapidly but regularly; with each elongation of the organ, the apex was pushed forward and swept to the left. The contractile wave, beginning at the auricles, swept over the ventricles.

On the third day after birth, the heart had lost its red color, being covered by a thick layer of fibrinous matter. This assumed a yellowish tinge, became softened, and was detached, leaving the muscular tissue of the heart exposed and dry, or less moist than it had been.

On the fourth day, the auriculo-ventricular fissure became deeper, and presented a ragged-looking groove, which was deepened by the thickening of the borders.

On the fifth day the child died, and twelve hours after a post mortem examination was made in the presence of Drs. Hammer and Rogers.

The body was about the average size, and perfect except as noted. The distance between the inner ends of the clavicles—*i. e.*, the sterno-clavicular articulations—was 1¾ inches. The first and second pieces of the sternum were divided, leaving a space like the letter U; this cleft extended to a point opposite the articulation of the fourth rib with the sternum, the opening being one inch in diameter.

As it approached the opening, the skin was continuous with a dense fibrous structure which was found attached to the great vessels—(*i. e.*, the pulmonary artery, the aorta, and vena cava)—at a point corresponding to that at which the pericardium is attached. This connection served to hold the vessels in position, as they escaped through the opening in the more dense structures. The heart was of normal size, but more elongated, the apex being formed by the *right* ventricle.

On opening the chest no space was found for the heart, the mediastinum being central, with the phrenic nerves passing down in it near each other; the lungs filled the entire cavity, and each lung had three lobes. The hepatic veins ascended as a long single vessel to the right of the median line, in the mediastinum, to the opening in the sternum, and entered the right auricle of the heart on its right side and behind the opening for the ascending cava.

The ascending cava passed up the *left* side of the median line in the mediastinum, received the descending cava, and entered the right auricle by a sinuous passage, at first passing downward, then turning at a right angle to the right entered the auricle. The descending cava, half an inch long, situated to *left* of median line, received the innominate of right side, which was long and crossed the median line toward the left. The left innominate vein passed directly downward, and joining the right, on the left of the median line, formed the descending cava. A single pulmonary vein, formed by the union of a vein from each side, entered the *left* auricle. The pulmonary artery, having but two semilunar valves at its beginning, took its origin from the right ventricle; while immediately to its right, and from the right ventricle also, came the aorta. A free opening existed between the right and left ventricles. No foramen ovale existed between the right and left auricles, the septum being perfect; no ductus arteriosus.

Extensive and recent adhesions, formed by recently deposited lymph, showed the existence of peritonitis.

St. Louis, Mo.

PUERPERAL FEVER AND ITS SUPPOSED ALLIANCES.

BY THOMAS CHESNUT, M. D.

Sydenham effected the revolution in the treatment of smallpox, by substituting free ventilation into the chamber of the sick, with sponging and ablutions of the entire person, with cool drinks and a cool regimen, which proved so beneficial and grateful to his patients, over the foul and pestilential air of the sick room, with the heating treatment practiced by the ancients. This truly valuable contribution to the practice of the healing art clearly entitled him to the gratitude of the age in which he lived. But vastly more important to all succeeding ages was the discovery by Dr. Jenner of the prophylactic and modifying properties and powers of the cow-pock virus, which discovery has entitled him to the first rank among the greatest benefactors of the human race. As many of the brightest and most enlightened minds of the profession are at present employing their best energies in pressing their inquiries into the cause or causes giving origin to that much dreaded disease commonly called puerperal fever, may we not hope that their untiring efforts will, ere long, meet with a reward which will more than compensate them for their benevolent labors.

Dr. Playfair, in his late System of Midwifery, says:—"The whole tendency of recent investigation is daily rendering it more and more certain that obstetricians have been led into error by the special virulence and intensity of the disease; and that they have erroneously considered it to be something special to the puerperal state, instead of recognizing in it a form of septic disease practically identical with that which is familiar to surgeons under the name of pyemia or septicemia."

Should the theory that puerperal fever is a septic disease, liable to be caused by the inoculation of ichorous or putrid animal matters conveyed from without or generated within the patient, producing thereby a morbid action, prove by the test of experience to be true, it would be an advanced step in the right direction, as it would serve to bring this formidable malady more completely under the control of preventive measures and remedial agencies, than would likely to be the case under the specific theory.

That puerperal fever, when it assumes a malignant type, is among the most contagious of diseases, is a fact which will scarcely be doubted by any one at the present time.

Dr. Gordon, in his report of the epidemic at Aberdeen, in the years 1789 to 1793, says, "that he could foretell what women would be attacked upon hearing by what midwife they were to be delivered, and that in almost every case his prediction was verified." (Journal of Medical Science, 1846, page 269.) Dr. Armstrong, in his essay on the Sunderland epidemic, mentions several instances of confinement of the disease to one man's practice. The same fact is noticed by Drs. Ramsbotham, Lee, Gooch, Robertson, Hutchinson and Blundell.

Again Dr. Gordon says:—"The disease seized such women only as were visited or delivered by practitioners, or taken care of by nurses, who had previously attended patients affected with the disease. I had evident proofs that every person who had been with a patient in the puerperal fever became charged with an atmosphere of infection, which was communicated to every pregnant woman who happened to come within its sphere. It is a disagreeable declaration for me to mention that I myself was the means of conveying the infection to a great number of women."

Dr. Leishman, in his Midwifery, page 689, says:—"Of all the modes in which fever may be generated in a puerperal woman, that by means of septic absorption, for which her condition at the moment offers peculiar facilities, is we now believe decidedly the most frequent, although it is only of late years that it has come prominently into action." Leishman again remarks:—"The doctrine of contagion is, in regard to septicemic puerperal fever, now all but universally received; but in regard to other varieties, and the allied inflammatory affections, the question presents itself for solution under conditions of greater difficulty. We have already expressed our opinion that although scarlatina may run its course in a woman who has been lately delivered, without development of any marked symptoms beyond those of the specific fever, such cases very frequently pass into a condition which is identical with puerperal fever." Again he says:—"Although the poison may produce in puerperal women scarlatina and nothing more, this is not the rule, but a rare exception." And again: "It matters but little in practice whether we say it is modified scarlatina or modified puerperal fever, so long as we recognize the affinity which subsists between the two." He continues: "But beyond this we are convinced that from the contagion thus developed puerperal fever may be again and again reproduced; and, if we are right in this, the same remarks will apply to the other septic fevers."

Dr. Playfair, in his System of Midwifery, on page 519, says:—"According to this theory, the so-called puerperal fever is produced by the absorption of septic matter into the system through solutions of continuity in the generative tract, such as always exist after labor. It is not essential that the poison should be peculiar or specific; for just as in surgical pyemia, any decomposing organic matter, either originating within the generative organs of the patient herself, or coming from without, may set up the morbid action."

The leading purpose which has prompted me to undertake the task of compiling from the recorded opinions contained in standard authors, and medical writers of acknowledged ability, such selections as may serve to show the identity or alliance that appears to exist between the poison of puerperal fever and erysipelas, is the fact that such connection is both theoretically and practically denied by some members of the profession.

In the American Journal of Medical Sciences, April, 1846, is contained a very elaborate and ably written paper, contributed by Dr. Kneeland, in which the connection between puerperal fever and erysipelas appears to be pretty clearly established. The doctor assumes, "that if puerperal fever and erysipelas depend upon the same cause, and are propagated in the same manner, we ought to find well-authenticated instances of the former giving rise to the latter disease, and *vice versa*." In evidence of the correctness of this assumption, he adduces the following instances of the contagion of erysipelas giving rise to puerperal fever: Mr. Hutchinson, of Nottingham, "mentions the fact of two surgeons meeting half way to visit a patient laboring under extensive erysipelas of the leg. One of these gentlemen attended a woman in labor the same evening, who died of puerperal fever; the other, in the two following days, attended three women, all of whom he lost in the same manner." In the Edinburgh Medical and Surgical Journal, Mr. Renton states that, "in a woman who died of puerperal fever in his practice, a constant communication had been kept up with the next house, in which were two children ill of erysipelas."

Dr. Ingleby, of Birmingham, gives the following cases:—"A practitioner attended a lady affected with erysipelas, and made incisions into the part. He shortly after attended a lady in labor, and on the same evening a second; both died of puerperal fever. A third fatal case followed, and a fourth was attacked but recovered. The second case was examined after death by himself and assistant, both of whom attended midwifery cases without changing their clothes; these women died of puerperal fever." Two surgeons visited a case of erysipelas, and went immediately after to a labor with placenta presentation; the patient died of puerperal fever. One of these surgeons attended a second confinement within a period of seven hours from the first; this patient was attacked with the fever, and narrowly escaped with her life; the woman who attended and nursed her became the subject of erysipelas. Another surgeon, after opening an erysipelatous abscess, attended a woman in labor, who died of puerperal fever.

In the Edinburgh Medical and Surgical Journal, 1839, Mr. Siders "relates the case of Mrs. C., who died of puerperal fever after confinement with her first child; her maid was, on the fourth day after her death, seized with diffused erysipelatous inflammation; the husband, at the same time, had sore throat." . . "Mrs. M. died of puerperal fever on the sixth day after her sixth confinement. Within a week five cases of erysipelas occurred in the family. The sister-in-law had erysipelatous sore throat; the mother-in-law and son had erysipelas of the head and face."

Playfair says in his Midwifery, p. 522:—"The dependence of the two on the same poison, was in one instance curiously shown by the fact of the child of a patient who died of puerperal fever, dying from erysipelas which started from a slight abrasion produced by the forceps."

Bedford, in his Principles of Obstetrics, page 683, says:—"The testimony is ample, showing a connection between puerperal fever and erysipelas. The two diseases may prevail simultaneously in the same neighborhood; or, if erysipelas alone prevail, a third party may communicate from a patient affected with it puerperal fever to a woman recently delivered."

Dr. Aitken, in the Science and Practice of Medicine, page 362, says:—"Erysipelas and puerperal fever are interchangeable diseases, the one being able to induce the other by personal contact."

Dr. Underhill quotes Dr. Barnes as saying:—"I do not believe that women in the pregnant or parturient state *catch* the disease from each other in the sense that they contract measles, scarlatina, etc., for example. But I do believe that the puerperal or parturient woman may be infected with the disease by direct contact of the poison of decomposing animal matter; the hand being the agent most likely to carry the poison."

Dr. John Dawson, of Jamestown, Ohio, who was a good thinker, a good observer, and a respectable writer, gave to the profession, through medical journals, a well digested and accurate history of the character and symptoms of the epidemic of puerperal fever and erysipelas as they prevailed in the Miami Valley, during the winter and spring of 1844. Dr. Minor, speaking of Dr. Dawson in relation to that epidemic, says:—"The doctor's most valuable observations at that time, however, were as to the connection existing between the epidemic erysipelas and the puerperal fever, which was then very prevalent in Warren and Montgomery counties. The doctor gives quite a number of cases to the point, and is fairly entitled to the credit of having been the closest observer and student of the connection of the two diseases in that celebrated epidemic. Dr. Dawson's conclusions are then entitled to due weight; they are as follows:

"First, that the disease prevailed at the same time that erysipelas was prevailing, and subsided on the disappearance of that malady; second, that the premonitory symptoms were like those of erysipelas, consisting of a chill, followed by more or less fever and sore throat; third, that in several instances erysipelas made its appearance on the skin during the progress of the malady, as was the case with several families witnessed by Dr. Van Tyle and others; fourth, instances occurred in which erysipelas was contracted from puerperal females by their nurses; fifth, that the children delivered, in almost every instance, were taken shortly after birth with high fever, erysipelas of the scalp and face, and died."

Dr. Dawson, in conclusion, remarks that—"Facts of this character must be regarded as going to settle, in a tolerably decided manner, the position that the fatal disease which occurred to the puerperal females, to whom I have alluded, is identical with the epidemic erysipelas, which prevailed at the time in the neighborhood."

But the gentleman who has devoted more time and expended more labor and thought than any other man, perhaps, in this country, in his inquiries into the nature and cause or causes of puerperal fever and its connection with erysipelas, is Dr. Thomas C. Minor, of Cincinnati, Ohio. In the Cincinnati Lancet and Observer for October, 1874, he speaks thus in regard to the result of his researches:

"If, after the mass of figures we have waded through, we have not been able to learn something regarding puerperal fever and erysipelas, it would be surprising. The study of the census tables of 1870, although they fail to give many decided signs of the connection between puerperal fever and erysipelas, still teach a valuable lesson. It is this:—in any place where erysipelas is found, there will be found puerperal fever. In the absence of more minute particulars than are furnished by the census tables, we are constrained to only give a general conclusion. This conclusion is based on the following propositions:

"1. Erysipelas and puerperal fever seem to prevail throughout all the states; 2. Any marked increase in any one locality of one disease, seems to be accompanied by a corresponding increase of the other; 3. Where history of past epidemics of either disease are obtainable from any of the states, the seeming connection of the two diseases was noticed by physicians at the time of such epidemic, and remarked on; 4. For these reasons we are, I think, justified in concluding that there is an intimate connection existing between puerperal fever and erysipelas."

The doctor continues:—"If we now study the tables of the late epidemic in this city (Cincinnati), we can further strengthen our belief, and arrive at an even more definite conclusion in regard to this subject, by basing ourselves on the following propositions:—1. The two diseases prevailed as epidemics, at the same time, in the same localities; 2. Where an isolated death from puerperal fever was noted, outside of the infected districts, a corresponding death from erysipelas was noted in the same locality: this was almost invariably the case; 3. Infants die of erysipelas shortly after or before their mothers die of puerperal fever; 4. A few physicians attending puerperal fever cases and erysipelas cases at the same time, as exhibited by the 'death register,' were the most unfortunate in their practice; 5. Physicians having large obstetrical practice, who are known to be believers in the doctrine enunciated regarding the connection of puerperal fever and erysipelas, make an exhibit of but few death certificates from either cause."

Dr. Minor remarks thus:—"It is a sad commentary on this last epidemic, that a few men who attended cases of erysipelas and puerperàl fever promiscuously, should have been most unfortunate in their practice. On the contrary, we notice some physicians having a large practice, who lost not more than one or two cases of puerperal fever, and no erysipelas cases at all." The doctor adds:—"I think the majority of our physicians refuse to attend confinement cases when they have erysipelas or puerperal fever cases on their hands." He further says:—"I am a firm believer in the doctrine so strongly urged by Dr. Tilbury Fox, of London, that erysipelas and puerperal fever are entirely dependent on a common poison."

Now, if the doctrine of the contagious and transmissible character of the disease be true, and the evidences already adduced in its favor are certainly very strong if not quite conclusive, is it not reasonable then to suppose that the spread of puerperal fever by contagion may be held quite as securely, if not even more effectually, within the control of the profession, than is the spread by contagion of small-pox at the present time? Persons of every age and sex are liable to contract the latter, while parturient women are alone liable to become the subjects of the former disease. It hardly need to be stated that a physician, while in attendance on a patient suffering from either puerperal fever or malignant erysipelas, should refuse to attend confinement cases during such attendance; and not afterward until ample time has been allowed to free his person and apparel from the poison, by the use of such means as are well known to every physician, before resuming his obstetrical practice. For the consideration of such, if any there be, who, either through indifference or perverseness, neglect to observe these precautionary means, we desire to call their attention to an opinion pronounced against such criminality by the editor of the Medico-Chirurgical Review, published more than one-third of a century ago, and which is equally as applicable to that class now, as it was to those for whom it was then intended. It is as follows:

"So overwhelming is the testimony in favor of the contagious nature of puerperal fever, and so frightful have been the consequences which have frequently resulted from neglecting the cautions which this should have furnished, that we think that a medical man who persists in attending successive cases of midwifery, after a well marked instance of the disease has appeared in his practice, should be made amenable to the criminal tribunals of his country. A woman has confided her life to his skill and honor, and he approaches her person, the bearer of what he knows to be reputed by some of the wisest of his profession a deadly poison, the escape from which she will owe more to her own idiosyncrasy than to his humanity."

LAFAYETTE, IND.

IODINE AS A REMEDY FOR INTERMITTENT FEVER.

BY G. W. H. KEMPER, M. D.

My attention was first directed to this remedy nine years ago in an article by Dr. Parvin, then editor of the Western Journal of Medicine, calling attention to a paper published in the *Archives Générales*, by Dr. Willebrand, Professor of Clinical Medicine in the University of Helsingfors.* It is stated in that article that Dr. W. had treated successfully with iodine nineteen cases of intermittent fever. "Most of them yielded after the second attack, this second paroxysm being generally much milder. There were only two cases in which the disease was not conquered before the fourth. From the spring of 1868 to the following autumn, not a single case of paludal fever was treated with quinia."

In the article referred to, Dr. Parvin says:—"The employment of iodine in intermittent is not a new thing. Upon referring to Bouchardat, *Manuel de Matière Medicale de Therapeutique et de Pharmacie*, tome second, page 647, we find, according to the formula of Barillean, the tincture of iodine, ten drops, in infusion of chamomile, three times a day—con-

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Western Journal of Medicine, Vol. IV, p. 512.

tinued several days, as given in intermittent fevers; while that of Barbas is iodine in the same quantity, but administered in infusion of chickory. Nevertheless, it may be better, as advised by the Finland professor, to give the remedy in aqueous solution, in smaller doses, and with briefer intervals."

Professor Willebrand's formula is as follows:—One gram of iodine and two grams of iodide of potassium, dissolved in ten grams of distilled water; five drops of this solution in water every two hours each day.

During the autumn of 1869 I prescribed iodine according to the formula of Dr. W., with excellent results, but reading afterwards a number of conflicting statements about the efficacy of the remedy, I finally discontinued it.

Quite recently attention has again been called to this remedy. Dr. Nowodnitschanski, a Russian physician, has claimed favorable results from using ten or twelve drops of the tincture of iodine at intervals of eight hours. Acting upon this statement, Dr. Fordyce Grinnell, Physician to Wichita Agency, Indian Territory, gave the remedy a trial, and reported as follows:—"Malarial diseases were prevailing extensively. I was using quinia at the rate of one ounce per day, and my stock was almost exhausted. I began by giving ten drops of the tincture in a half glass of sweetened water three times daily to adults, proportional doses being given to children. I have been astonished and delighted with the results. I have thus treated in all one hundred and thirty-five cases of intermittent fever, seventy-four being males and sixty-one females. These have included children, and in some instances infants in arms. The quotidian and tertian types of the fever were the forms principally presented. I have also treated four cases of diarrhea (malarial), and eight cases of neuralgia (malarial), using the same remedy—only adding astringents or opiates in cases of diarrhea, and narcotics in the neuralgia cases. One hundred and forty-seven cases have thus far been treated with the iodine, and the results have been fully equal to those treated with the sulphate of quinia."*

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* Cincinnati Lancet and Clinic, August 31, 1878, p. 145.

From these strong statements I have been led to make further trials with iodine, using the formula of Prof. Willebrand; or in apothecaries' weight as follows:

℞	Iodine, ...	grs. xv
	Iod. potass., ...	℈ jss
	Aqua, ...	f ℥ ijss. M.

Sig. Five drops largely diluted with water every two hours. This I continue until the paroxysms are arrested, when I direct longer intervals between doses. Recently I have treated thus fifteen patients. In a majority of the cases no paroxysm occurred after beginning with the treatment. I directed these patients to report to me, and as yet no failure has been reported. It is to be hoped that medical men will give the remedy a more extended trial, and report successes and failures. The price is another item of no small matter to physicians compelled to furnish medicines in these days, when the preparations of the bark command such high prices.

MUNCIE, IND.

CASE OF POISONING BY OIL OF BITTER ALMONDS.

BY S. V. WRIGHT, M. D.

On September 14, 1878, I prescribed an emulsion of oil for Mr. H., a man in good flesh, and of extraordinary vitality, but who had been suffering with phthisis for the past six months, the apex of the left lung being affected. One-third of the oil emulsion should have been almond-water. By an error of a druggist, four ounces of oil of bitter almonds, instead of four ounces of almond-water, were used in forming the emulsion of twelve ounces. The next day, between 10 and 11 o'clock, Mr. H. took a large tablespoonful of this mixture, having previously taken in the morning a tablespoonful of a cough syrup, containing one drachm of acid. hydrocyan. dil. to eight ounces of menstruum. Soon after taking a dose of the emulsion he felt sick, and took another spoonful of the cough mixture. At 12 M. he felt badly, and went to bed, thinking he was going to have a chill.

I was summoned in haste at 4 P. M. I met Dr. H. at the gate, who said the patient was in a bad condition as the result of my medicine, and that he had given him morphia and bismuth, and ordered milk. I found the patient almost pulseless, extremities cold, lips black, with face intensely cyanosed, looking like a corpse that had lain for hours in the sun. He gasped for breath like a fish out of water, and his speech was unintelligible. I gave him brandy, letting it run from a spoon down his throat, and kept an almost constant stream of cold water pouring on his head. After half an hour his circulation was much improved, and he complained of nausea and vomited what he had eaten the previous day, the result of having been freely dosed with mustard before my arrival. I continued the cold effusions and stimulants till 6.30 P. M.

At 7 P. M. his lips were still livid, but the pulse was good, and the face rapidly regaining its natural appearance. Twelve hours after I found him sitting up, complaining only of numbness of the extremities and weakness.

The principal subjective symptom in this case was intense pain in the head. As he recovered, he continued exclaiming, in a jerking, hesitating way, "What's—the mat-matter with me?" I judge, from the size of the spoon, that nearly or quite two drachms of the oil were taken.

GREENSBURG, IND.

Reviews.

A New Rotating Urethrotome. By JOHN A. PRITCHETT, M. D., Hayneville, Ala. New York Medical Journal, July, 1878.

This is a brief paper, published in the New York Medical Journal for July, 1878, and circulated in pamphlet form, offering to the professional public an instrument for treating contractions of the male urethra, for which such unusual merits are claimed that I feel constrained to make some few remarks in regard to it. For the benefit of those who have not read the *brochure*, I will give the author's description of the urethrotome, which is as follows:

"First, we have a plain cylindrical rod or staff, fifteen inches long, two millimeters in diameter, and with the short curve of Bumstead. The external extremity has attached on its under surface a ring to serve as a handle, while the internal extremity terminates in a screw for the attachment of filiforms. A tunneled screw-head (Gouley's attachment*) is also provided to screw on for using the finest whalebone guides. Next, and in this consists the peculiarity of the instrument, we have three tubes, each seven inches long, and fitting the rod closely, and with a slit down its entire length, so as to pass the ring-handle of the staff. At the external extremity of each tube are attached laterally two rings for handles, while each internal extremity is beveled so as to pass strictures more readily. One tube carries at its internal extremity, attached superiorly, a triangular, probe-pointed blade, nine millimeters in size; a second tube carries a similar blade seven millimeters in size, also attached superiorly; while the third tube carries *two similar blades*, each four millimeters in size, attached laterally."

In introducing the instrument, Dr. Pritchett begins by comparing it with the urethrotomes of Maisonneuve and Otis, claiming that it has combined the small size of the one with the cutting capacity of the other; and remarks that Otis's instrument is "peculiarly fitted" for operating upon contractions of large caliber, that of M. Maisonneuve being "best adapted" for the division of very close strictures. If I am not much mistaken, it was never proposed to use Otis's instrument for other than coarctations of large size; and I think he expressly states that when strictures of small caliber exist, they should be sufficiently opened, either by dilatation or division by some other instrument, to admit the dilating urethrotome; when it is to be introduced, expanded until it reaches the capacity of the individual urethra, and the contraction thus thoroughly divided. Here is most certainly a preparatory operation to prepare the stricture for the use of Otis's instrument. The special merits of Otis's instrument is its power of dividing the stricture "on the stretch," thus cutting through the entire thickness of the same.

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* More properly Van Buren's.—(Reviewer's note.)

As to the urethrotome of M. Maisonneuve, I can only say it is too well known to all surgeons that it is impossible to divide with it a coarctation greater than the thickness of its largest blade, to deserve any further comment.

Dr. P. finds, as an objection to the Maisonneuve, "that it does not give sufficient room," even after employing the largest blade, only "nicking the stricture at one point of its circumference," and allowing but the passage of a "number nine or ten English" sound. Now, by reference to the description of his instrument, as above quoted, it will be seen that Dr. P.'s largest blade is only nine millimeters thick, which corresponds exactly with the large blade of a Maisonneuve, which is also but nine millimeters in depth. Certainly he is unable to cut any deeper with his nine millimeter blade than can be accomplished with the nine millimeter blade of Maisonneuve. If the largest blade of Maisonneuve *merely nicks* the stricture, how is it possible for his, which is the same width, to do more than *nick* the stricture also?

In reference to its being only possible to "pass a number nine or ten English" sound, after division with the largest blade of Maisonneuve, I can but say, as any surgeon who has had much urethral practice will attest, that I have often seen a number thirty French—about equal to an eighteen of the English scale—literally drop into the bladder after a tight annular stricture had been incised with the nine millimeter blade of Maisonneuve; and it is most usually of little trouble to introduce much larger numbers than "nine or ten English" immediately after such an operation.

But the great advantage of the instrument, and in which its "peculiarity" consists, is the power of rotating the blades, which, being placed on tubes, are passed over the rod or staff. This rotation allows the stricture to be cut in one direction on the passage of the instrument from before backwards, and after passing the contraction the mere turning of the ring-handle revolves the blade, and cuts it in an opposite direction on its withdrawal.

Let us analyze this peculiar merit of the instrument, and compare it on the same point with the Maisonneuve. For example:—suppose a stricture of the annular variety, the one of all others best adapted to the use of Dr. P.'s instrument, contracted to the size of twelve millimeters. His instrument with the largest blade — nine millimeters — is introduced, and the stricture divided on the roof of the urethra; the blade is rotated, withdrawn, and the coarctation thus incised inferiorly. Now, the stricture was twelve millimeters in thickness—and supposed to be the same in its whole circumference — but the blade is only nine millimeters in width; hence the cut can be but nine millimeters deep, and this subtracted from the thickness of the stricture (twelve millimeters) leaves a depth of undivided retractile tissue of three millimeters. The two incisions not being in the same direction—one on the upper surface, the other below — necessarily they do not cut the whole depth of the stricture, but divide it only nine millimeters in either direction, leaving, as above stated, three millimeters of undivided stricture tissue at the point where each incision ceases. The number of incisions increase, of course, the permeability of the strictured portion, but do not, by any means, render the incisions any deeper; and the result is that the coarctation is not completely divided, as is done with the dilating urethrotome.

But all strictures are not annular in form. Again, suppose we have an urethra with a contraction on its upper surface; the largest blade of the "rotating urethrotome" is slid down the staff, and the stricture incised at this point. The stricture is now cut; what, then, is the need of rotation?—What is the necessity of revolving the blade and incising the floor of the canal, which is perfectly healthy? True, such a procedure would give more "room," but it is unsurgical; and the very point for which urethrotomists are contending is to cut the strictured part *alone*, and avoid all damage to the sound tissue. The same reasoning applies to the double-bladed tube.

This advantage, however, of giving "room" for the introduction of a sound by the multiple incision over Maisonneuve, is not quite so apparent as might at first appear. The same can be accomplished by the bilateral blade of Maisonneuve, which also cuts two sides at once. And, again, should we wish to incise the floor of the stricture after dividing its roof with the single blade, we have but to substitute the staff grooved on its convex side, and the same blade will cut it here also. A *real* disadvantage in rotating the blade in the ampulla behind the coarctation, is the danger of lacerating the healthy urethra, as the canal is always collapsed; and hence it would be very easy for the mucous membrane to become entangled in the blade or blades.

Dr. P. remarks that he is as yet unable to assert whether the "rotating urethrotome" will effect a radical cure of urethral stricture; but says his own results with it are "as good as any ever obtained from Otis's instrument." Here I would ask if he has followed his cases up for any length of time after such an operation? Many still doubt the ability of the Otis instrument of effecting a permanent cure; and if there is any doubt of curing the stricture after being cut when "on the stretch," how can the rotating instrument ever accomplish it, when in many instances the stricture will be found much thicker than the thickness of his largest blade? We would like to see Dr. P.'s statistics of cases, which, to be of much value, should extend up into the dozens.

Dr. P. says, with great truth, that his instrument "may be called a modification of Maisonneuve," for we are unable to see any material difference between the two, except that the one has a blade attached to a tube which slides *over* the staff, the other has a blade at the end of a blade-rod which glides in a groove *in* the staff. Cutting in opposite directions can be as well accomplished by substituting the convex or concave-grooved staff of a Maisonneuve, as required, as by revolving his blades; and Maisonneuve's bilateral blade will divide both sides of a coarctation as well as his double-bladed tube.

Still again: the armamentarium of urethral instruments has already attained such dimensions, that unless an instrument presents some really valuable point, it is more than useless, and only serves to confound the early student and lumber the shelves of the more advanced operator.

In conclusion, I may safely say, with all due deference to Dr. P.'s skill and mechanical ingenuity, that the "rotating urethrotome" will never supersede the urethrotome of M. Maisonneuve, nor the dilating instrument of Dr. Otis.

W. M. M.

Annual Reports of the Supervising Surgeon-General of the Marine Hospital Service of the United States, for the Fiscal Years 1876 and 1877. By JOHN M. WOOWORTH, M. D. Washington: Government Printing Office. 1878.

It appears that the report of the Supervising Surgeon-General for 1876 was not printed, so the present volume of two hundred and thirteen pages contains the reports of the operations of the service for 1876, as well as that for 1877. This is the report of the service for the sixth year of Supervising Surgeon-General Woodworth, and makes a creditable showing for his management of the wide-spread and complicated duties devolving on him. The number of seamen treated in 1870, at seventy-four places, was 10,560, at a cost of $38.41 per capita; the number in 1877, at one hundred places, was 15,175, at a cost per capita of $24.22—a reduction of over forty per cent.

The book is full of instructive statistical tables. One of these gives relative frequency of death from the various diseases that were fatal, consumption taking the lead at 20.27 per cent. of the whole, being very nearly the general average in civil life; remittent fever comes next, with 10.12 per cent.; and pneumonia third, with 7.60 per cent. These are not the percentages a civilian, *a priori*, would have guessed.

Beside the subjects presented by the chief, there are appended reports from subordinates, full of interest and instruction, viz., recommending the adoption of the metric system of weights and measures in the service, by Oscar Oldberg, Ph. D.; Physical Examination of Seamen, by Surgeon P. H. Bailhache; River Exposure and its Effects on the Lungs, by Surgeon Walter Wyman; and Yellow Fever at Savannah and Brunswick in 1876, by Assistant Surgeons George H. Stone and Henry Smith, and at Fernandina in 1877 by Surgeon Robert D. Murray. J. F. H.

On the Therapeutic Forces—An effort to consider the Action of Medicines in the light of the modern doctrine of the Conservation of Force. By THOMAS J. MAYS, M. D., Member of the Luzerne County Medical Society, Member of the Pennsylvania Medical Society, etc. Philadelphia: Lindsay and Blakiston. 1878. 143 pp.

The fundamental idea of this little book is that all remedial agents must have their operations scientifically explained—a very good fundament if its advocate does not strain things too hard to accomplish his purpose.

Dr. Mays divides medicines into chemical stimulants, mechanical stimulants, and narcotics. A chemical stimulant is one that harmonizes with vital action, exciting increased molecular activity by giving up its force to accelerate force already acting: cod-liver oil is an example. A mechanical stimulant is one that antagonizes vital force and increases molecular activity, by its liberated force opposing the vital force of a pathological character, and subduing it: quinia is an example. Narcotics are drugs whose forces, being liberated, overpower the molecular activity of the nerves, whether normal or abnormal. Alcohol in large doses is a narcotic, though in small doses a chemical stimulant; opium in large doses is a narcotic, though in small doses a mechanical stimulant.

This is a comprehensive plan, but it will not capture the clinician, because he will administer quinia without regard to whether it cures intermittents by running with the grain, or against the grain, of vital molecular activity. Nor will it satisfy the pure scientist, because its premises are neither axioms nor demonstrated propositions, and its deductions are illogical and forced.

The book seems to be the work of one of that large class of good men, and not bad doctors, who mistake assumptions for facts, reason badly, think tremendously, and write fluently; and it must look to that same large class for readers and admirers. J. F. H.

Pocket Therapeutics and Dose-Book—With Classification and Explanation of the Action of Medicines, Poisons and their Antidotes, etc. By MOSES STEWART, JR., M. D. Price, 50 cents. Detroit, Mich.: Emil Schober, Printer. 1878.

In one hundred pages, the pages being somewhat less than four inches by three, we have the practice of medicine given. Surely this is an ambitious design—ambitious enough, indeed, but impossible of attainment. We can not see why a physician of Dr. Stewart's ability attempted it; and for his own reputation and for the good of the profession, the sooner he has the book suppressed the better. The book is a blunder, and it is full of blunders; and the only possible apology for the volume is similar to that which "Susan" offered in "Midshipman Easy," for having a baby without having a husband, "It is only a very little baby."

Proofs of the blunders are abundant, and some will be presented. The first page of printed matter is headed "errata," and fifteen errors noted and corrected. The conclusion, therefore, would be that this list is complete. Yet on page 7, we read "alements" and "non-nitrigenous;" and on the next "chalybeats," whatever these words may mean. On page 11, we have the following: "*Order* 1.—*Inebriates*—are very like stimulants; given in small doses they are exhilerants, but in large doses they depress the heart's action, and impair the intellectual functions." Now if the first part read "Inebriates like stimulants," we could understand the meaning at once. But when we read of these inebriates being given in small or in large doses, we are simply shocked at the fearful cannibalism. This out-Herods Herod, out-Hammonds Hammond—the former only made way with a few hundred babies, and the latter asks only for the homicidal maniacs a short shrift and a sure cord. But now dipsomaniacs, male and female, of all sorts, conditions and ages, are to be sacrificed upon the altar of Æsculapius—butchered not to make a Roman holiday, but to cure disease. We have not the heart to even ask what the Detroit dose of inebriates is, and whether the supply equals the demand for this new article of the materia medica. During the height of the present yellow fever epidemic, the telegraph announced that a Detroit firm of druggists—only wicked people would suggest this was simply a free advertising dodge—with an eye single to human good or to their own gain, had a remedy for yellow fever, and that this philanthropic firm was sending some of the wonderful medicine to the stricken cities of the south. Was that extraordinary remedy inebriates?

But let us pass from this melancholy subject. We read of "ipecacuanhæ" (in the nominative), of "podophyllii," "proplylactic," "anthilmintic," "lini ferina," "venerial," "taraxicum," etc.

We learn, on page 36, that ergot is to be given in labor only in the third stage, and that it arrests "post pastem hemorrhage." As the third stage of labor is the expulsion of the placenta, ergot would have little obstetric use. Nevertheless we are glad to know it is good in post pastem hemorrhage.

Under the head of "convulsions," we are advised to use bromide of potassium in all forms,—this wonderfully simplifies the treatment of the disorder; under that of "abscesses," we find that "poultices check formation of pus, assist maturation,"—a delightful duplicity of action. We have a variety of cephalalgia called "neuralgiac"—[we wonder if this headache *neuralgiac* can ever be caused by cogniac, and cured by ammoniac?]—of a pain that is "nittling," of a "uterine lachial* discharge," of "dysentary," etc.

Now, if this be not a book of blunders, where can blunders be found?

Traité Elementaire de Chirurgie Gynecologique. Par Le Docteur A. Le Blond. Paris, 1878.

Dr. Le Blond, the author of this elementary treatise upon gynecological surgery, is well known to the profession as the able editor of the *Annales de Gynécologie.* He is also well known for his translation into French of the late Dr. Fleetwood Churchill's able volume upon diseases of women.

The volume which he now introduces to the profession contains between six hundred and seven hundred pages, two hundred and eighty-one illustrations, a very full description of instruments required in gynecological surgery and of the operations themselves. Very many of these illustrations are of American instruments. Dr. Le Blond, who is usually remarkably correct in his text and woodcuts — rarely making a mistake of any sort — we think has fallen into some. For example, when Dr. Albert H. Smith looks, on p. 280, at the illustration of the pessary there given his name, he will hardly recognize the instrument; and then when Dr. Sims finds, on p. 297, an instrument marked as the *Redresseur de Simpson*, he will be somewhat surprised that so able and learned a French physician should not know that the representation was of Dr. Sims's, not of Dr. Simpson's, instrument. These, however, are trifling errors in Dr. L.'s excellent book.

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* That uterine lachial discharge is possibly something as bad as post pastem hemorrhage. Of course lachial is not a misprint, lochial being meant, for then it would be unnecessary to qualify it as uterine, since a lochial discharge only comes from the uterus.

But there is a graver mistake made, and it is in the history of abdominal ovariotomy. Laumonier is credited with having, in 1781, successfully extirpated the ovary in a case of encysted dropsy of the tube complicated with ovaritis. Then several American operators are stated to have performed ovariotomy several times successfully, and the names mentioned are Nathan Smith, Atlee, Peaslee, Kimball and Dunlap. Not a word of the Father of Ovariotomy, McDowell. Surely this is the play of Hamlet with Hamlet left out!

Nevertheless the volume is a good one, and we wish some enterprising American publisher would have it translated and issued in this country.

Visions: A Study of False Sight (Pseudopia). By EDWARD H. CLARKE, M. D. With an Introduction and Memorial Sketch, by OLIVER WENDELL HOLMES, M. D. Boston: Houghton, Osgood and Company. 1878.

Dr. Clarke, eminent as a physician, as a teacher, and as a writer, became the last years of his life the victim of a protracted, fatal and most painful disease, cancer of the rectum. For three years, we believe, he was looking death in the face, traveling, indeed, in great physical agony right to it. This book was written in those years, partly as a diversion from his painful condition, and "in hours of distress which were intervals of agony." Not only so, but in the midst of his suffering his devoted wife, then most needed by him in all his years, was taken sick, and died after a brief illness. Thus this book is the product of one who was drinking no common draughts of sorrow and of suffering. To the memory of his wife who, as he states, inspired him with courage to undertake the preparation of the work, and who by her pen rendered its preparation possible; and to his daughter who, taking the pen snatched by death from her mother, continued her mother's inspiration, and assumed her mother's task, the book is dedicated.

The introduction and memorial sketch are full of affection, of just appreciation, of tender grace, and written at once with the strength and beauty which so mark the gifted author's utterances.

The book itself is intensely interesting and instructive. It is chiefly a physiological study, and explains most visions as dependent upon automatism; they belong to the individual, to his physical nature and condition, and are not external to him. Nevertheless, after thus disposing of the greater part of these visions—making them pseudopia, false sight—there is a residuum not thus to be disposed of. In referring to the visions of the dying he remarks:—"Probably all such visions as these are automatic. But yet who, believing in God and personal immortality, as the writer rejoices in doing, will dare to say *absolutely all?*—will dare to assert there is no *possible* exception?"

In Carlyle's life of John Sterling, there is a chapter devoted to Coleridge, in which the following passage occurs:—"A sublime man; who, alone in those dark days, had saved his crown of spiritual manhood; escaping from the black materialism, and revolutionary deluges, with 'God, Freedom, Immortality,' still his: a king of men."

Let us be thankful that such a man as Edward H. Clarke has lived, and that in the searching ordeal of things material, he found no resting-place in materialism, but saved his crown of spiritual manhood, with God, Freedom, Immortality still his.

A Practical Treatise on the Medical and Surgical Uses of Electricity, including Localized and General Faradization, Localized and Central Galvanization, Electrolysis and Galvano-Cautery. By GEO. M. BEARD, A. M., M. D., and A. D. ROCKWELL, A. M., M D. Second edition, revised, enlarged, and mostly re-written. With nearly two hundred illustrations. New York: William Wood and Co. 1878.

Doctors Beard and Rockwell are so well known to the profession, not only of this country but of the world, as diligent and faithful workers in the department of electricity, in its medical and surgical applications, that whatever they utter demands respectful attention,—they speak with authority. When the first edition of their work, in 1871, was so soon exhausted, sufficient evidence of the need of such a book, and of its full appreciation by the profession, was given.

It is unnecessary to state that the second edition is still more valuable, and deserves a place in the library of every physician.

Anatomy, Descriptive and Surgical. By HENRY GRAY, F. R. S., Fellow of the Royal College of Surgeons and Lecturer on Anatomy at St. George's Hospital Medical School. With five hundred and twenty-two Engravings on Wood. With an Introduction on General Anatomy and Development. By T. HOLMES, M. A., Cantab., Surgeon to St. George's Hospital, etc. A new American, from the Eighth and enlarged English edition. To which is added Landmarks, Medical and Surgical. By LUTHER HOLDEN, F. R. C. S. Philadelphia: Henry C. Lea. 1878.

The American edition of Gray's Anatomy has been supervised by Dr. Richard J. Dunglison, and the publisher has greatly added to the value of the volume by appending Mr. Holden's Landmarks.

We need not say a word in commendation of this great work. It is the text-book on anatomy; there is no attempt even to equal, still less to rival it, and can not be for many a day.

FOREIGN CORRESPONDENCE.[*]

DR. YANDELL'S LETTERS FROM ABROAD—No. VI.

LONDON, July 20, 1878.

Bichloride of methylene is a far safer anesthetic than chloroform. In nearly nine hundred operations, he has "never once been in the smallest anxiety about a patient." He uses Dr. Junker's apparatus. The nurses have the sponges ready of a certain size. "If they be too small, they may be lost; if they be too large, they can not be introduced." Only two assistants are required. One assists in tying vessels, and in preventing the intestines coming out after the cyst has left the abdominal cavity. As to the instruments required, the first is a scalpel—the point to be used mainly. If a vessel is cut it should be caught by forceps, so that no blood drops into the abdominal cavity. The peritoneum is then divided, avoiding the cyst. "One or two flat touches of the scalpel on the peritoneum are sufficient to divide it." A broad director is passed into the opening, and the peritoneum is divided by a blunt-pointed knife; a sharp-pointed knife may wound the intestines, or even the bladder if high up. Having incised the peritoneum for four or five inches, it becomes necessary to empty the cyst; and this is done by a trocar, "which is furnished with outer spring-hooks to fasten the cyst." It is passed into the cyst, the point withdrawn, and the fluid escapes by the tube attached to it. "As that is done, the outer hooks are opened, the cyst is caught hold of and easily fastened to the canula, and pulled out through the opening in the abdominal wall; the fluid passes out, the cyst is held by these grasping claws, and, if the cyst be free, it of course readily and easily follows the instrument."

At this point comes the question of dealing with the adhesions, either to the abdominal walls or to the omentum, or to the intestines, or to some of the structures in the pelvis.

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[*] This abstract of Prof. Wells's Lectures on Ovariotomy is continued from September No., p. 182.

Sometimes the incision finds the cyst glued to the abdominal walls. If the adhesions be very close, it is well to empty the cyst before separating it from the belly wall. Often the cyst may be grasped by its interior surface, and so drawn out and the adhesions torn. Occasionally some firm band must be severed by the knife or scissors; but this is rarely the case, and can almost always be done without dissection. Then after clearing the adhesions, the tumor may have to be broken up, or other cysts tapped, before it can be removed. The incision may, after all, have to be enlarged. After the withdrawal of the tumor the pedicle comes into view; it may be a band of greater or less breadth, or a cord or root, short or long, or it may be divided into several portions. There are various ways of dealing with the pedicle. In the earliest operations it was tied with whip-cord, and the ends were brought out through the wound. Then leather ligatures were used, the ends cut short off, and the pedicle dropped back into the abdomen. Then came the clamp. There is much to be attended to in the application of the clamp. Mr. Wells generally gives the last turn of the screw with a pair of forceps, instead of trusting to his fingers alone. When one part of the pedicle is much thinner than other parts, he prefers to put a ligature round the pedicle below the clamp. If the ligature be put on before the clamp is screwed up finally, it makes the pedicle round, so that the clamp is less likely to slip. The clamp, being curved, does not press upon the edges of the wound. It keeps any dead or dying piece of pedicle outside the abdominal wall; and as to the part of the pedicle outside, a little perchloride or persulphate of iron sprinkled on it, converts what might otherwise become putrid into a piece of hard leather, "which can not do any possible harm." If the pedicle be too short or too broad for the clamp, then it becomes necessary to use the ligature. It is dangerous to use sharp-pointed instruments near the abdominal cavity, as intestines or veins may be wounded. So the needle has a blunt point; and to avoid entanglement of the silk it has a double eye. It is not difficult to push such a needle even through the thick part of the cyst; and when the instrument is withdrawn, two threads are ready to be tied. He first makes a "surgeon's knot," and then an additional knot, believing there is greater safety in the surgeon's knot with a third knot, than in any reef knot. With the third knot, and the pedicle tied in two or more parts, it is secure; but sometimes the pedicle will split at the spot where the needle was passed. "If so, all that is necessary is to take another turn of the silk and just bring it round from one side to the other, so that the whole pedicle is compressed." But if this last can be dispensed with it is well, as it crumples up the pedicle, and "makes a tight band across the pelvis."

A third method is to use the cautery; but before proceeding with its discussion, Mr. Wells said, suppose we have got so far as the removal of the tumor, the application of the clamp or ligature, and cut the tumor away, then it becomes necessary to cleanse the peritoneum from blood or ovarian fluid, which is done by means of sponges. This should be done thoroughly, as the peritoneum bears it well; "the more careful this sponging, the better is the result to the patient." The number of sponges is a matter of moment; they ought to be carefully counted. There are cases where a sponge has been found in a patient's abdomen after her death. Once such a mistake occurred to himself. He was just finishing, when a gentleman said a sponge was left in. He asked the nurse if all the sponges were there; she answered, "they are all here—I have sixteen." The cavity was explored for a sponge, and none was found. The wound was sewed up. Late in the evening word came a sponge was missing—a sponge the nurse "knew." The patient seemed pretty well. Next morning she was worse. Two stitches were taken out and the finger inserted, and there was the sponge; the movements of the intestine had brought it to the wound. The patient did well. Another time a sponge was missing, the abdomen was carefully explored, but no sponge was found. The nurse was positive; so another hunt was made for it, and it was found at the back of the liver, betwixt the liver and the diaphragm. It was a small sponge, and since then Mr. Wells objects to too small sponges.

Then as to the cautery; it was invented to apply to adhesions and to adhering omentum, which were clamped first and then cauterized. Apparently Mr. Wells has abandoned the cautery as a primary means of treating the pedicle. When the cautery is indicated, he prefers Paquelin's thermo-cautery. It is a hollow platinum cone, heated first and then kept hot by a stream of benzoline vapor. He also uses a lamp by Collins for throwing light upon a dark spot, where a bleeding vessel may lurk.

After the thorough cleansing of the peritoneum comes the closing of the wound. Once he used two harelip pins, and put a twisted suture round them. Now he uses silk exclusively. He has the needles threaded in pairs, two needles to each piece of silk, and puts them into a piece of carbolized gauze. Then he uses Mr. Wormald's needle-holder. "Each needle is passed from within outward;" by so doing, there is no risk of wounding the intestine. First, one of the needles to each piece of silk, then the other; when passed the assistant holds the ends of the sutures up, while the next needle is passed in. A flat sponge is placed within the wound while the sutures are being passed, to catch any drop of blood; when all the stitches are passed this sponge is withdrawn, and the assistant grasps the abdominal wall tightly while the sutures are tied. This keeps out intestine or omentum. There are cases where fatal obstruction of the bowels was caused by the intestine being caught in a suture. If the omentum be caught, it leads to troublesome vomiting. The surgeon should then occasionally pass his finger inward, during the tying of the sutures, to make sure that there is nothing intervening in the wound.

As to dressing the wound, it is kept as dry as possible. The last and best thing is gauze saturated with thymol, the most recent substitute for carbolic acid. Thymol and spermaceti are mixed together, and the gauze charged with it and simply put over the wound. Eight or ten other folds are put over the first, after which strips of plaster are applied and then the flannel bandage. This last should be lined with linen or calico to lessen the irritation. The bandage is tightly fastened over the gauze with safety-pins. "That being done, the patient is carried to bed, left there quiet and comfortably warm, with only the nurse in the room."

As to the after-history of the wound: Where the clamp is used the pedicle is found attached to the abdominal wall, but the uterus has free movement. In stitching up the wound the stitches should go through the peritoneum, so that no oozing can get through. "If the two peritoneal surfaces be held together, they unite quite firmly and accurately." Mr. Wells is very earnest about the propriety and necessity, in all cases of wounds of the abdominal wall, of bringing the two peritoneal edges accurately and closely together.

Mr. Wells never uses wire ligatures to the pedicle. The clamp has advantages at the time of operation; it is put on quickly and the bleeding is suppressed with complete security. He has never known dangerous bleeding from the slipping of a clamp, whereas it has been known to occur with the ligature. For security from primary hemorrhage the clamp has the advantage. The advantage of the ligature is that it allows the wound to heal with less interference from less frequent dressing, and the patient is so far more comfortable. The clamp often causes no inconvenience, the patient not being aware of its being there; but at other times there is redness and swelling, with some discharge. As to the results obtained, "the mortality of the same operation in the hands of the same operator is eighteen per cent. more with the ligature than the clamp." This outweighs any questions of a few more days in bed, or some trouble in dressing the wound. No surgeon should bind himself to the extraperitoneal or intraperitoneal treatment of the pedicle, but should carry out the method best adapted to the case before him. "If the pedicle be small enough to be securely held in a clamp of moderate size, and long enough to permit the clamp being fixed outside the closed wound, without much pull on the uterus or broad ligament, no more ready or more successful method than the clamp can be desired. When the pedicle is so short, broad, or thick, that a very large clamp would be necessary to secure it, that the wound could not be closed around it, and the traction upon the uterus excessive, either the ligament or the cautery should be preferred to the clamp. Or if, after applying a clamp, it be found that it can not be fixed outside without undue strain upon the uterus, either the cautery may be used, or the pedicle may be transfixed and tied, and the clamp removed after it has served its temporary purpose." The use of the antiseptic treatment may cause the other methods to be preferred to the clamp. The cyst may be twisted off by Macleod's plan. As to adhesions, if they be torn off, the abdominal wall contracts and stops the bleeding; if cut by knife or scissors, the bleeding is often troublesome. Compression by torsion-forceps will usually stop the bleeding, or a ligature may be required. In the only two cases where he had trouble with bleeding, the abdominal walls were slack, and he held the two loose folds firmly together while the sutures were being put in, and passed a couple of needles through the whole thickness of the abdominal walls.

As to accidents which may happen: A sponge has been left in the abdomen, as has been seen. Once, too, several pairs of torsion-forceps had been used, and a pair were found missing on counting them. This discovery was made two hours after the operation. The patient was examined, but all seemed well; she had a bad night, however; so on the pretext of changing the dressings methylene was given, the wound opened, and then the forceps were found "wrapped up in the omentum." The patient got quite well. He comments thus: "Pray let me use this confession to impress upon you the necessity not only of counting sponges, but of counting instruments also, that you may avoid any such painful experience." If it be necessary to employ drainage, a glass tube, with a shoulder to prevent its slipping into the abdomen, is passed in at the lower angle of the wound, and two stitches are put round the shoulder; through this tube an elastic catheter or a piece of rubber-tubing may be passed, and a sponge may be saturated with some antiseptic and placed over the tube.

As to the after-treatment of ovariotomy, he alluded first to warmth and diet and amount of alcohol. Once hot steam and the free use of opium were thought essential. Now a room of comfortable temperature, and no more opium than is strictly indicated, are preferred. As a rule, and as an article of ordinary diet, no alcohol is given — though given freely when medicinally indicated. As a means of lowering temperature, aconite, quinia, salicylic acid, have all failed. Ice to the head, by means of a cap made of coils of india-rubber tubing, connected with a pail of water with a lump of ice in it, has the effect of lowering the temperature very markedly. If the temperature is rising, the rise is checked; if it be very high it can be lowered, and so time gained for the recovery of the patient. Many of the evil results of ovariotomy seem to be due to too high a temperature. The brain gets overheated, the secretions are checked, the kidneys and bowels do not act; to lower the temperature relieves all these disturbances. Whenever bad symptoms, as a rise of temperature, pain, sickness and rapid pulse, set in, it is always well to examine the abdomen carefully, to see if there be any fluid accumulation there. It is common to find fluid in the most dependant part, commonly in Douglas's pouch. Passing a trocar by the vagina permits of the escape of fetid fluid, with great relief to the symptoms; sometimes it becomes desirable to leave in a canula to complete the cure. One of the objections to the ligature is the formation, sooner or later, of a pelvic abscess. Months even after the operation an abscess may form, and the ligature come away by it with portions of the broad ligament with it.

Of incomplete operations or exploratory incisions: Of his first five hundred ovariotomies, twenty incomplete operations and twenty-four exploratory incisions occurred, or about ten per cent.; of four hundred more recent cases there have been but thirty of both, or about seven and a half per cent. "Out of these thirty cases, death was probably accelerated in eight.

In four others, whose death occurred at various periods from fourteen to fifty-two days, the incision probably had not much effect either in lengthening or shortening life." In five patients a part of an ovarian cyst was removed, and all appear to have been completely cured. In two the remaining part of the cyst was drained. He then discussed at some length the question of incomplete operations, from their moral as well as other aspects. He then told of the results of operations, and from a circular sent out found that a number of women who were unmarried at the time of operation had married since, and many of these, as well as those who were married when operated on, had since borne children; some one, some several. "Nor was there anything in the result after removal of both ovaries which seemed remarkable, except that in three cases there was what appeared to be something like a return to normal menstruation. In most of the cases, when both ovaries were removed, there has been nothing like any return to menstruation, even in young women."

Then came the question, "What are the results of ovariotomy?" With his increasing experience, the mortality has fallen from a death-rate of 25.4 per cent. in the first five hundred cases, to seventeen per cent. in the last hundred. "Ovariotomy more certainly saves life from threatened death, restores a woman more certainly to perfect health, renders her more fit for all the requirements of daily life, than almost any other surgical operation. She can scarcely be said to be mutilated." Lord Selborne said, at the opening of the new branch of the Samaritan Hospital, as regards the results of ovariotomy:—"Instead of the four years of declining health and hopeless misery which these women would have had to anticipate, not only these four years, but twenty-five years, which upon the average had been wholly saved to them, were years of restored health, usefulness and happiness."

In his sixth lecture, Mr. Wells spoke of the second ovariotomy in the same patient for recurrent disease. Four such cases have been published by him in his work on "Diseases of the Ovaries;" and since then he has operated on seven more, all of whom have recovered. Of ovariotomy performed during pregnancy, he has one more case to add to the nine previously published; here the operation was followed by the birth of a healthy child at full term.

Having referred to the history of the operation, changes in the mode and in the instruments, Mr. Wells went on to speak of some points in the after-history of the cases. It was soon found that the peritonitis often resulting therefrom was really septic in its nature; consequently our efforts were turned in the direction of dealing with blood-poisoning. He spoke of the arguments that had been brought forward in favor of the antiseptic treatment of wounds, of the opposition to it, and the references made to his own great success without any antiseptics. After careful study of antiseptic ovariotomy in Germany, Mr. Wells commenced this year by adopting it himself. It had already been adopted by Mr. Knowsley Thornton at the Samaritan Hospital with gratifying success. Thymol seemed the agent best adapted for ovariotomy; but in order to test it thoroughly, it was used alternately with carbolic acid. The result has been that of completed cases of ovariotomy, out of fourteen but one has died, and she died of tetanus after the healing of the wound. After the most careful and critical survey of his cases of operation antiseptically, twenty-two in all, he says:—"I shall certainly continue the trial until I arrive at some conclusion, one way or the other; and I think I have already noticed a considerable difference in the progress of cases after operation, since I used carbolic acid and thymol." The pyrexia is lessened; "in antiseptic ovariotomy fever is the exception, whereas formerly it was the rule." The facts in favor of antiseptic treatment furnished by four German surgeons are, that before this plan was adopted, sixty-five cases resulted in thirty-three deaths; since then one hundred and five cases have been followed by thirty-three deaths—a very marked alteration in the same hands. "As far as the inquiry has hitherto extended, the results would encourage us to continue the practice carefully, but without being seduced into the extragavances of some whose faith in carbolic acid knows no bounds." Like Prof. Lister, Mr. Wells is most careful in every way in applying the system; in each case, their faith in the plan is compatible with the minutest care and scrupulous regard to cleanliness—they, indeed, neglect no precaution in their judicious zeal. "Let us regard," he says, "the antiseptic treatment not as a substitute for those measures which have already proved effectual, but as an additional safeguard." He expressed a strong opinion that further experience will prove the plan to be of real and very great value.

The last lecture was on the subject of the surgical treatment of uterine tumors. His experience comprises forty-five cases operated upon through the abdominal wall. In twenty-four the tumors were completely removed. These operations are much more dangerous than ovariotomy. Sometimes one or both ovaries may have to be removed with the tumor. A table of forty-five cases was then given. Of twenty-one cases where an exploratory incision was made, and the tumor punctured or partially removed, only two died—one a hopeless case, which died in three hours; the other lived fifteen days, death apparently not being hastened by the operation. With regard to the method of operating, the only difference consists in a longer incision and greater difficulty in securing the bleeding vessels, which require careful ligature. It is seldom the pedicle is sufficiently long to admit of extraperitoneal treatment, though this gives the best results when practicable. It is the treatment of the pedicle, "or the medium of connection between the tumor and the uterus," which leads to the greater danger of this operation as compared with ovariotomy. He then spoke of Freund's method of entirely removing a cancerous uterus, describing it by means of a diagram. He concluded his lectures by a high eulogium of McDowell, who he says is justly looked upon as the "father of ovariotomy," and who made the operation "a boon to humanity." "McDowell was wise, practical and prophetic. He carefully studied the subject which filled his mind; did with an enviable success what his opportunities permitted; and looked with an anxious eye on the prospect opening up to his successors. We, more happy in our opportunities, have entered into full possession of what to him was little more than a promised land." Mr. Wells has attained the operative success which McDowell gave as the standard; and, more than that, his "example has emboldened others, and will be the means of still further extending to human suffering the consolatory assurance of the prospect of relief, and insuring the certainty of its realization by the many skillful hands which are now betaking themselves to the work." He sounded a warning to that class who rush in where "angels fear to tread." The simple "wish," he said, "to do well what others have done is not all that is wanted. Step by step their course must be followed. A fancied inspiration will not alone lead to success. "Listen," he added, "to the words of the great Kentuckian:"

> "It is my most ardent wish that this operation may remain to the mechanical surgeon forever incomprehensible. Such have been the bane of the science, intruding themselves into the ranks of the profession with no other qualification but boldness in undertaking, ignorance of their responsibility, and indifference to the lives of their patients; proceeding according to the special dictate of some author as mechanical as themselves, they cut and tear with fearless indifference, utterly incapable of exercising any judgment of their own in cases of emergency, and sometimes without possessing the slightest knowledge of the anatomy of the parts concerned. The preposterous and injurious attempts of such pretenders can seldom fail to prove destructive to the patients and disgraceful to the science. It is by such this noble science has been degraded, in the minds of many, to the rank of an art."

McDowell strove, as Mr. Wells has expressed it, to make ovariotomy a boon to humanity, but he early foresaw the the dangers of its abuse from rash and indiscriminate rivalry amongst his followers. I myself can count up quite half a hundred of women whose lives were sacrificed by medical men who undertook the operation, one of them at least as his maiden effort, and most who could be properly called mere mechanical surgeons. There, was, indeed a time in Louisville when the failures had reached such a point that women with ovarian tumors positively refused to have them removed by surgeons here. These aspirants for surgical distinction, to whom I have alluded, turned a deaf ear to the words, and their backs to the counsels, of wisdom. It is to be hoped that other lives will not again be placed in their hands.

Mr. Wells concluded as follows:—"Allow me to read a sentence or two from one of those able reviews which make one regret that the day of the medical quarterlies is passed. (British and Foreign Med. Review, April, 1873.) 'All honor to McDowell, of Kentucky, who, to use the words of Hufeland, 'looked upon his profession as a high and holy office, who exercised it purely, not for his own advancement, not for his own honor, but for the glory of God and the good of his neighbor, and who, long since called to give an account of it, is no doubt reaping the reward of his faithful stewardship.'"

Professor John Wood, of King's College Hospital, so well known in America and so much liked in this great city, exhibited at one of the last clinics I had the opportunity of attending, a case of hernia, radically cured by dissecting away under the carbolic spray a thickened and large sac of a scrotal hernia, and removed a considerable portion of consolidated and irreducible omentum. Professor W. stated that he had performed a good many operations of this kind for the radical cure of irreducible omental hernia, and so far with uniform success. The absence of symptoms subsequent to these operations was remarkable; very little discharge and no suppuration had followed in most of them.

In one case, that of crural hernia in a woman of sixty, who was crippled from rheumatism, no truss of any kind had been or could be worn, and the patient having had a bad cough, was brought in with constipation, vomiting, and the usual symptoms of severe strangulation. The taxis under chloroform was of no avail, and an operation for the relief of the strangulation was at once performed without carbolic spray. A large mass of adherent omentum was found to overlap and conceal a knuckle of chocolate-colored bowel, the stricture was divided, the bowel returned, and about half to three-fourths of a pound of omentum was then removed by tearing off with the fingers and forceps. Small silk ligatures were applied to a few small bleeding vessels, and then the sac was cut off close to Poupart's ligament. A thick silver wire was then carried through the neck of the sac and stump of omentum, transfixing Poupart's ligament on the one hand, and the pubic portion of fascia lata on the other, and twisted so as to bring Poupart's ligament close down to the pubic fascia lata close to the femoral sheath. The patient had no bleeding, no peritonitis whatever, and very slight discharge. She was convalescent in three weeks, and went out of the hospital with the parts well closed up and consolidated. She has not attempted to wear any truss, and has had no return of the hernia since, the operation being performed nearly nine months ago. Simple carbolic lotion was used as dressing, and a drainage-tube kept in for a fortnight.

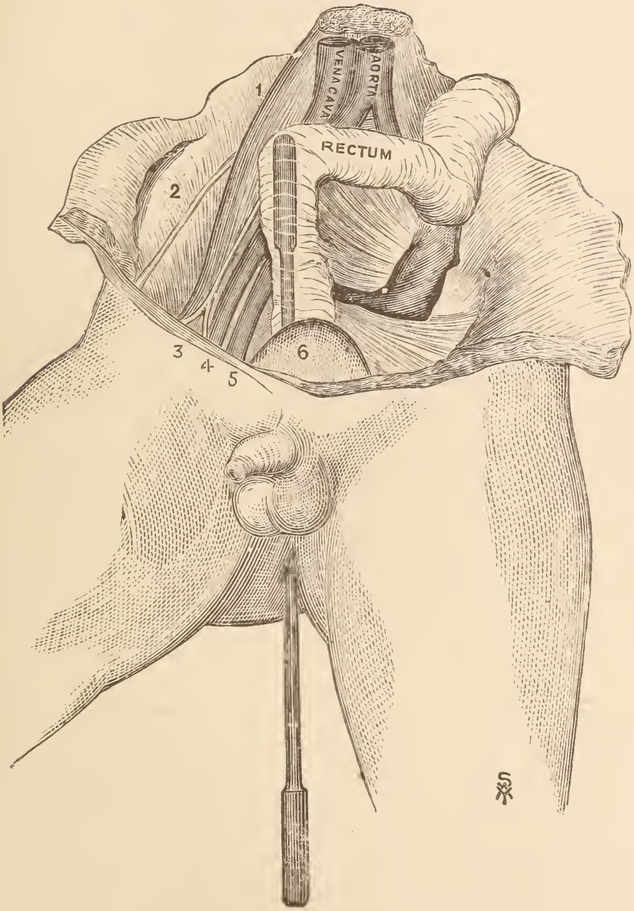
All cases of strangulated hernia in which the bowel is not damaged, and in persons under the middle period of life, are treated by Prof. Wood in this manner, the hernial opening being closed by wire and any adherent omentum removed.

For the radical cure of inguinal hernia he had now operated in more than two hundred and fifty cases, and as far as could be ascertained the proportion of cures was seventy-five per cent., while those which had not been quite cured had had a truss made available, which had not been the case before the operation. Only three deaths had occurred — one from pyemia, one from erysipelas, and one from peritonitis, but *not* in consequence of the operation.

Prof. Wood next showed a case which had been operated on eighteen years ago on the previous Saturday. It was an inguinal hernia of the right side, one of the largest he had ever operated on; the patient aged thirty-five years, a bricklayer's laborer, subject to heavy lifting strains. The patient was operated on in the presence of many London surgeons, among whom was the late Sir William Fergusson. He wore a truss for nine months, and then discarded it, continuing his laborious occupation. He had been shown from time to time at the Medico-Chirurgical and Pathological Societies, as well as in the theater of King's College Hospital. Latterly he had had a bad bronchitis, which had produced a weakness and bulging on the *opposite* or left groin, for which he had applied to Professor Wood. In other cases he had operated on sixteen, fourteen, twelve, eleven and ten years ago, and whom he had been fortunate enough to inspect and show to the class from time to time, proving the *duration* of the cure from operation in these cases, upon which doubt had been thrown by some surgeons.

Professor Wood believes that the proper performance of his operation will yield, in selected cases (in which the valvular action of the walls of the inguinal canal can be restored), as large a proportion of successful cases, with as little risk to life, as in most other surgical operations.

You possibly saw, during last spring, that M. Verneuil had read a paper before the French Academy of Medicine on amputation of the hip-joint, and advised that the blood contained in the limbs should be driven back into the trunk by means of Esmarch's bandage, the flaps be made from the sides, and the vessels ligatured before division. The paper was based upon a single successful case, in which it is claimed that the operation was almost bloodless. I think he will find few surgeons in America who will follow his teachings, so far at least as relates to the flaps and ligating the vessels before cutting them. Then with Lister's abdominal tourniquet—an invention, however, which really belongs to the elder Pancoast; or with a compress made of folded towels, or a pincushion laid on the vessel, and kept in place by a stout rubber band encircling the abdomen (as practiced by Spence in his last operation, in which but two ounces of blood were said to have been lost;) and, finally, by a method recently devised by Mr. Richard Davy for compressing the internal iliac artery, through the rectum on the pelvic wall, a figure of which I here give. There would seem to be no other means for restraining hemorrhage desired.



(The rectum is supposed to be transparent.) 1.—Psoas magnus muscle. 2.—Iliacus muscle and exterior cutaneous nerve. 3.—Genito-crural nerve. 4.—External iliac artery. 5.—External iliac vein. 6.—Bladder.

The compressor used by Mr. Davy consists of a lever of wood turned smooth and round, the small end to be applied over the common iliac artery, between the lumbar bodies and psoas magnus muscle, on the diseased or injured side, while the projecting part of the lever runs parallel to the opposite thigh. Introducing the compressor into the rectum and elevating the projecting arm of lever, the perineal tissues are made to act as a fulcrum. As the lever is elevated or depressed, the femoral artery of that side ceases or continues to pulsate. A reference to the cut, for which I am indebted to my friend, Mr. Ernest Hart, will make any further description unnecessary. Mr. Davy believes that this method of controlling hemorrhage is less serious than compression of the aorta through the abdominal wall; that it is more easy and reliable; that the circulatory system is far less disturbed by reason of the circulation in the opposite limb being untouched; and finally, that this method of compressing aorta and iliacs, might apply to many operations in pelvic surgery. Mr. Davy has used his lever in a single case, and the loss of blood was about a wineglassful.

My next must be the last of my letters from here. I have the notes for many more, but lack the time to even string them together.

Faithfully, my dear Parvin,

D. W. Yandell.

Clinic of the Month.

The Microscopic Examination of Urine.—At the October meeting, last year, I brought to the attention of this society the subject of the prevalence of unrecognized chronic Bright's disease. The existence particularly of a latent, preparatory, forming stage of the disease, in which no deviation from usual health occurs, and to which no recognized sign, no warning signal, is assigned, was pointed out in most striking, emphatic language, quoted from, and the concurrent testimony of, the best authorities. It was also shown by the same testimony, and it is well known to every practitioner, that the early progress and not unfrequently the course of chronic Bright's disease, is equally insidious and unrecognized.

If the urine of every person who consults or is seen by a physician were examined for albumen, and if albumen were invariably present in the urine of persons subjects of the disease to which the name albuminuria is given, then our art and practice would be sufficient and clear.

Grainger Stewart writes:—"Albumen is rarely present in any considerable quantity, and its presence fitful in its appearance and varying in its amount" in cirrhosis of the kidney.

"The simplicity of testing the urine for albumen, and so settling the question of the presence or absence of kidney disease, is so alluring, that many forget that it is only one symptom of renal disease." "The diagnosis of chronic renal disease during its quiescent periods (*that is, during the greater portion of its existence*")—the italics are mine—"is a matter involving much thought and care, much knowledge and observation, watchful attention and thoughtful pathological research, ere an opinion entitled to any weight can be reached; and yet there are those who will at once decide the matter by testing the urine for albumen, and if it be not present throw over forthwith all the other evidence—a plan calling for stern reprobation." "The man who would make the diagnosis of chronic renal disease turn on the presence or absence of albumen, is a man whose patient I should not like to be." "The silent progress of interstitial nephritis is often without albumen for long periods." (Fothergill, "Hand-book of Treatment," pp. 395–6.)

The professional experiences of the past year have added new examples of quickly fatal courses and terminations after late recognition in persons whose previous health was good, but who were subjects of chronic renal disease. In one of these the urine had been examined, and the absence of albumen had misled the physician in his diagnosis. In two others albumen was absent and the disease progressed unrecognized until the vision became suddenly impaired. Quite recently I have seen two persons whose health was good until about three months ago dyspnea, due to irregularity of the heart from associated hypertrophy, led to the investigation of the kidneys and the diagnosis of chronic renal disease. In these the urine gave all the usual evidences, in quantity, specific gravity, presence of albumen and renal tube-casts, of the disease. In several the only general form of cast found was the hyaline or transparent. This was uniformly the case in the examinations of the non-albuminous urines.

I therefore feel now more and more confirmed in the conclusion stated last October, "that the hyaline cast is a very early and important means of diagnosis—as early and significant in its relation to the kidney as the mucous râle is to the lung."

I think in every stage of chronic Bright's disease the hyaline cast is present in the urine; and in those preparatory states of the circulatory, digestive and organs of secretion and excretion which lead in time to organic changes in the kidney, it will also be found. I do not propose, at this time, to enter upon an inquiry as to the importance of hyaline casts, or their significance when found in the urine. I do not suppose that this or any other form of cast necessarily indicate structural disease of the kidney.

But whether albumen is or is not present, the microscopic examination is indispensable in any study of renal pathology. When hyperemia of the kidney exists, the hyaline cast will, I think, invariably show it, and often there is no other sign or symptom. If, in the absence of other signs and evidences, we may conclude that no important or permanent renal changes have taken place, still we should in every such case look for, and we shall often enough find, associated with the hyaline cast, as the primary cause of the renal hyperemia, valve disease or cardiac hypertrophy, atheromatous vessels, pulmonary emphysema, chronic pleuritic effusion, cirrhosis of liver, chronic catarrhs of bronchial, gastric or intestinal mucous membranes, stricture of the urethra, renal calculi, the gouty habit, chronic alcohol or lead poisoning, etc., together with many vague or so-called functional disturbances of the nervous, digestive, and other systems.

Regarded in this light, the hyaline has a daily and increasing practical value in my observations, not impaired by the fact to which I wish to give its proper recognition, that renal hyperemia, and so the hyaline cast, is most often as transient and insignificant as is the bronchial hyperemia of a common cold. In microscopical examination of urine of men in good ordinary health, in active life, with its vicissitudes dependent upon habits and pursuits, I have found one in four to have hyaline casts on one or more trials.

It has occurred to me so often to find renal tube-casts in urine submitted to me for examination, when others, physicians practiced in the use of the microscope, have reported no casts in the same urine or in other urine from the same persons, that I wish to submit to the society the manner of my observations, so that those who are watching their patients and the families they attend for the earliest indications of renal affections, may, without too much expenditure of time, be certain that they have sufficiently sought for evidences afforded by the urine.

For, as is well known, the hyaline cast is not an abundant formation, compared with epithelial, fatty and granular casts, which are shed from the renal tubes in some forms of kidney disease as abundantly as the peeling after eruptive fevers. One or two hyaline casts are often all that can be seen after a well directed microscopic examination. Their transparency is spoken of as a reason why they are often overlooked. But I do not think, with the objectives at present offered by the best makers, it can be said there is any difficulty in seeing the so-called transparent casts.

It is the practice to take the portion for the microscopic slide with the pipette from the bottom of the urine. But urinary deposits are often *not* sediment, and I have many times taken portions from visible deposits floating near the surface or at various depths below, and found casts when the pipette, passed to the bottom, obtained none. Quite recently a member of our profession in the city of New York, of middle age, in apparent good health, who suffered a few months ago a slight impairment of vision, and then discovered that his urine contained albumen and had a specific gravity of 1008, sought the advice of a distinguished consulting physician, who recognized the facts so far as related, but did not find any casts. In the urine submitted to me, after standing eighteen hours, I saw a light cloud floating in the urine near the surface. This contained numerous casts, but none were found from the bottom.

Again, casts may not be found in the sediment after six hours' standing, when the sediment of the same urine after twelve hours more may yield them. When the microscopic examination of a single drop has failed me, a second or third, or some successive search, has repaid the expenditure of time. (B. A. Segur, M. D., in Proceedings of the Medical Society of the County of Kings, October, 1878.)

THE CASUAL RELATION BETWEEN URTICARIA AND MALARIA. In the *Memorabilien*, September 18, 1878, Dr. Kersch presents a case—novel to him, but familiar to many of our readers—

which resisted treatment for some time, that of a married woman forty-one years old, suffering from malarial fever, from which urticaria resulted. On examination he found the liver and spleen enlarged, pulse 112, temperature 38° Cent., about 100½° F. Quinia was administered, and the next morning the patient felt much better, but in the evening there was a return of the fever. Quinia was ordered again and the fever disappeared; but on visiting the patient a few days after, she informed the doctor that during the past night she was very restless on account of a continual itching of the back and arms and of the whole body, so that she had slept very little. There was an eruption of the skin of a dark red color, which looked as if the patient had been bitten by bed-bugs or some other insect, and the conclusion was reached that it was a case of intense urticaria. Dr. K. informed the woman that he was mistaken in his previous diagnosis; that it was a case of urticaria, (for although he had often heard of urticaria following malaria, he had never seen a case), and comforted her with the prognosis that it would disappear in four or five days, at the same time restricting the quinia to one half the amount he had been giving Eleven days passed, and the promised disappearance of the exanthem did not occur, in spite of the use of carbolized glycerine, baths, ointments, etc.

The patient became discouraged, and Dr. Pick, lecturer on dermatology and syphilis, was called in consultation, who at once suggested the possible connection of the eruption with malaria, and recommended large doses of quinia for a long time. The patient took, twice a day for fifteen days, a half gram of quinia, without any positive result, except controlling the fever. The patient was then ordered one gram of quinia in the morning and a half gram at noon; and at my evening visit she complained greatly of cinchonism, loss of hearing, etc., but I heard nothing more of the itching, there being not a trace of the exanthem left. The state of the temperature and pulse in this case was interesting; the body was cool, the temperature being 34.8° Centigrade or 94⅗° F., the pulse 52 per minute.

ACUTE CEREBRAL ANEURISM—OCULO MOTOR PARALYSIS—MENINGEAL APOPLEXY.*—The patient was a girl aged seventeen years, of phthisical family, delicate, tall and slender, very thin, of fair complexion, but hitherto in good health. While having a difficult evacuation from the bowels, during which there was much straining, she suddenly felt as if something had given way within the head, somewhere above the right eye. This was followed by a circumscribed headache, which continued uninterruptedly ever since. She subsequently had periodical vomitings; the bowels moved sluggishly, and there was slight fever. When examined a few days later she had divergent strabismus and ptosis of the right eye; both pupils were somewhat large. The pulse was 64 to the minute.

The treatment consisted of cold applications, laxatives, ice, and morphia internally. Ptosis became more marked; three days later she could not open the eye; the eyeball was immovable in its abnormal position, and the right pupil considerably dilated and motionless.

During the following two weeks there was very little change. Scarcely any amelioration in the headache; the fever ceased, pulse varied from 72 to 80. Vomiting occurred at longer intervals; bowels moved naturally. She now began to sit up a little.

Prognosis very grave. The family was given to understand that the disease might at any time culminate in a sudden and unfavorable manner, which actually happened a little over a month after the first examination. She rose in the morning, vomited a couple of times as usual, and lay down on the bed during the forenoon; then without any prodromata she became unconscious, there was cyanosis, spasms of the extremities, and the mouth was drawn to the right side. When the physician arrived, half an hour later, she was dead.

Sectio cadaveris.—The whole subdural and subarachnoid space over the convexity, and at the base of the brain, was filled with dark and coagulated blood; the extravasation ex-

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*Translated from *Nordiskt Medicinskt Archiv*, by JOHN A. OCTERLONY, A. M., M. D.

tended down into the spinal cord. An aneurism, the size of a large pea, was found arising by a pediculated attachment from the intracranial portion of the internal carotid, at a point between the origin of the anterior cerebral and the posterior communicating arteries, close to the entrance of the third nerve into the cavernous sinus. On the outer aspect the aneurism was covered, as with a capsule, by the flattened third nerve. On the cerebral aspect was an opening infiltrated with blood. The arterial wall at the origin of the aneurism was much attenuated. No embolus could be found anywhere. The right middle cerebral artery was considerably wider than the left, but without any degeneration of its walls. Nothing else to be observed except anemia of the eyeballs. The cranial cavity alone could be examined.

The sudden accession of extended yet sharply limited local phenomena led to a somewhat positive diagnosis, especially as aneurism at the base of the brain occurs not seldom and at all ages; while a neoplasm (latent up to the time of seizure), or apoplexy, in this locality, that is close to the trunk of the oculo motor nerve, was hardly probable. The sensation of sudden giving way within the head, and the other circumstances attending the commencement of her illness, speak in favor of an incomplete rupture of the arterial wall, determined by a greatly increased intracranial blood pressure and consequent dilatation of the weakened vascular wall. The other cerebral arteries were perfectly sound, as one would expect in so young a person. The final meningeal apoplexy was due to rupture of the aneurism according to the usual course.

SYPHILITIC DISEASE OF THE LIVER.*—The patient, a maid of twenty-five years, had always been sickly; when ten years old she had ulcers in the throat and on the trunk; at the age of sixteen years she was treated for inflammation of the kidneys. Four years ago she again had ulcers in the throat and on the lower extremities, which slowly healed under anti-syphilitic treatment. In September, 1876, her feet began to swell, and during the summer of 1877 the swelling extended to the abdomen and other parts of the body, and soon became very considerable. In September, 1877, when she entered the Seraphim Hospital at Stockholm, she had general anasarca; the lower extremities were enormously swollen, and she also had considerable ascites. The lower border of the liver could not be accurately determined by percussion, and it could not be felt on palpation. The urine contained a great deal of albumen and numerous tube-casts of different kinds. There was considerable loss of substance in the throat and of the soft palate, and the uvula was entirely gone. Several superficial cicatrices on the legs. The urine became very scanty during her stay in the hospital, and on the 8th of October she had a sudden attack of uremia with coma, and violent convulsions followed by diarrhea and repeated vomiting. After this her strength rapidly failed, and she died on the 21st of October.

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* Translated from *Nordiskt Medicinskt Archiv*, by JOHN A. OCTERLONY, A. M., M. D.

At the autopsy were found the throat lesions, recognized during life and attributed to syphilis. There was also found a hyperplastic nephritis and splenitis. The liver was attached to the diaphragm by firm adhesions. The organ was strongly nodulated on the surface, with deep cicatrix-like depressions between the nodules. Section of the liver showed it to be permeated by a very large number of typical gummata. In one section were seen at least fifteen; the largest of them having a diameter of four centimeters. A great many were evidently of recent origin, and were presumably in the period of active growth. It was remarked by Prof. Key that he had never before seen a liver with such a large number of gummata; they were estimated to be over fifty, and he had hardly ever seen them so large. It is a point of special interest that in this case, where during the first half of the decennium 20–30, such an unusually abundant irruption of hepatic gummata took place. Syphilis very plainly was either hereditary, or acquired during early childhood.

Notes and Queries.

THE MEDICAL COMMISSION.—The government has appointed a committee, consisting of three medical men, for the purpose of studying the march and progress of the present yellow fever epidemic. The gentlemen composing the committee are Professor Bemiss, of New Orleans, chairman; Professor Cochran, of Mobile; and Professor Howard, of Baltimore. The selection will certainly inspire the profession throughout the country with confidence. It only remains to be seen whether the labors of the commission will increase our present very meager and unsatisfactory knowledge of the fever. Let us hope that the committee will enter upon the work with minds fallow for the reception of truth, no matter whence it may come, or what shape it may take. If they do not their labor will be vain, and another opportunity to clear up what has hitherto seemed to be the almost impenetrable mystery which surrounds the march of yellow fever, will have been lost.

Let us hope, whatever may have been their opinions, that when they accept the responsibilities of the commission, they will leave these at the door, and bring to their momentous task minds virgin to truth. If they can not do this, they are not fit for the work. If they begin their investigations believing that the poison of yellow fever is communicated by contact from person to person, or is transported from point to point on water or on land, or that it is developed as the result of certain hydrometric and thermometric conditions, and in view of facts are not able to divest themselves of these opinions, they shall prove unworthy the honor they have won, and their labors will end in confusion. No commission ever appointed by this government has had such momentous issues placed in its hands. If it solve the problem of the rise and spread of yellow fever, it will win, not only the homage of the profession, but the gratitude of mankind as well.

FOUNTAIN COUNTY MEDICAL SOCIETY.—The following is an extract from the transactions of this society at its semi-annual meeting, held at Veedersburg, Ind., October 3, 1878:

Dr. G. S. Jones, president, in the chair; Dr. J. C. Burlington, of Attica, was admitted a member of the society; total number of members, twenty-two.

Dr. S. J. Irwin, of Crawfordsville, Ind., read a paper entitled "A plea for an anatomical law in Indiana," in which he condemned, in the strongest terms, the practice of stealing human bodies, and expressed the desire that all body-snatchers should be apprehended and punished. He said that the late agitation upon that subject might prove a Godsend to the medical profession, as it would bring prominently before the mind of the public the inconsistency of the present law, which, while it requires of the physician a thorough knowledge of human anatomy, deprives him of the only means of obtaining it. He thought the law of New York a good one, which allows the bodies of unclaimed persons who die in the hospitals, and of criminals, to be handed over to the doctors for dissection.

The following resolutions were presented and adopted:

Resolved, That it is one of the most important duties of our State Legislature, however much it has been neglected heretofore, to enact suitable laws to secure to the people all possible benefits from sanitary science in protection from contagious, epidemic and endemic disease; and this society believes that the establishment of State and Local Sanitary Boards would be an important step in that direction.

Resolved, That the state should take cognizance of the qualifications of physicians, in order to protect the health and lives of the people from danger by unskillful treatment, by providing a State Board of Medical Examiners, and making it a penal offense to practice medicine without a certificate of qualification from said Board. The said Board of Examiners should require a thorough knowledge of all the branches of medical science as usually taught, without regard to school (sect), or individual theories.

Resolved, That this society earnestly recommend and request our representatives in the State Legislature to favor the passage of suitable laws, permitting and encouraging the study of practical anatomy by physicians and medical students.

Resolved, That the secretary be requested to furnish a copy of these resolutions to Dr. G. S. Jones, who was appointed by the State Society to represent Fountain county on a committee "to use their influence with the Legislature" in this matter, and to the newspapers of the county for publication.

T. F. LEECH, M. D., Secretary.

HOW DOCTORS DISAGREE.—In the Philadelphia Medical Times, September 28, 1878, appears a review of "Hamilton on Nervous Diseases," which throughout is rather complimentary. It says:—"A need has existed for a book on nervous diseases, clear, compact, comprehensive, and up to the times. This has been largely met by Dr. Hamilton's volume. On the whole, after a careful reading of this book, we can commend it to the general practitioner and student as the work most likely to meet their requirements."

In the September number of the St. Louis Clinical Record is a review of the same book, which is very uncomplimentary, from which we make the following extract:—"We have taken the trouble to wade through Dr. Hamilton's book, and with a full sense of our responsibility to our readers, we do not hesitate to say, that we have not found in it a single idea of the author's which is original and worth the paper on which it is printed. We are very sure there is not a neurologist, in this or any other country, who will not agree with us that the volume is, in the main, an undigested mass of material taken bodily, in most cases without acknowledgment, from recently published works on diseases of the nervous system; and that what is not thus unlawfully gathered into Dr. Hamilton's garner is scanty, worthless, incorrect or unreliable."

It is possible that neither of these reviews represents the book fairly; but if the Record, after its severe review, is so critical as to correct many of the typographical errors of proper names, it certainly should not fall into the pit it has dug for Dr. Hamilton, by saying that *Freidreich* is called

Friedrich, which latter way of spelling Friedreich it classes among the "minor but still aggravating mistakes, or exhibitions of ignorance."

IODINE IN INTERMITTENT FEVER.—In the Cincinnati Lancet and Clinic, July 27th and August 31st, favorable comment is made on the recommendation of a Russian with the formidable name, Nowodnitschauski, that tincture of iodine is very efficacious in ague. What's the necessity of introducing us to this long-named foreigner, when Dr. James Y. Shearer told the readers of the Reporter the same thing nigh five years ago (January, 1874); and, before him, in 1871, Dr. Napheys had said the same, in the third edition of his Modern Therapeutics? Let us credit those of our own household when we can. (Medical and Surgical Reporter.)

For a notice of this use of iodine, see the Western Journal of Medicine, August, 1869, two years in advance of the utterance of Dr. Napheys. "Let us credit those of our own household when we can."

ERRATUM.—In Dr. Thornberry's article in last month's issue, the symptoms almost pathognomonic of malarial remittent should be tenderness of the spleen with *indented* tongue, instead of *indurated* tongue.

LONG DIVISION AND SUBTRACTION.—In the last number of our journal Dr. Yandell's letter was by mistake divided into two parts, and the second part, occupied with Spencer Wells's lectures, placed at quite a distance from the first—a distance both long and wrong. So, too, Dr. Yandell's signature was omitted—a mistake of subtraction.

THE AMERICAN PRACTITIONER.

NOVEMBER, 1878.

> Certainly it is excellent discipline for an author to feel that he must say all that he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than anything else.—RUSKIN.

Original Communications.

A CASE OF LITHOTOMY.*

HISTORY OF AN UNSUCCESSFUL CASE OF LITHOTOMY, WITH SOME COMMENTS ON THE CHARACTER AND DIAGNOSIS OF DIFFERENT FORMS OF RENAL DISEASE, ASSOCIATED WITH STONE IN THE BLADDER.

BY N. P. DANDRIDGE, M. D.

July 19, 1878, I was asked by Dr. Foster to see Michael Casey, who presented symptoms of stone in the bladder. At the first visit an attempt was made to introduce a sound, but owing to the great sensibility of the bladder, and the pain it caused, the attempt was unsuccessful and was given up, until ether could be administered.

The following history was obtained: Age sixty five years; Irish; private policeman; is in the habit of drinking several pints of beer daily. Six years ago began to suffer with urinary trouble, and this has continued from time to time since then. About one year ago began to suffer with frequent desire to void urine; this was always attended with more or less pain. The urine at times contained blood.

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* Read before the Cincinnati Medical Society.

At present the face is puffy and pale, and presents the appearance of great suffering. The desire to pass water is intense, and recurs every few minutes. A few drops only are voided at a time, and great pain, especially at the end of the penis, is always experienced. At times prolapse of the mucous membrane of the rectum occurs, and causes great distress.

The day after the sounding the urine was examined, and found to contain a considerable quantity of blood, and a large quantity of pus corpuscles. It was ammoniacal, and deposited the triple phosphates, and a few oxalate of lime crystals. Albumen, to the extent of one-third the amount of urine, was present. The specific gravity was 1010.

The day following it was not deemed advisable to administer ether; so an attempt was made to better his present condition, and if possible allay to some extent the urgent and distressing symptoms caused by the cystitis, which the examination of the urine proved to be present. For this purpose tonics; anodynes, and the usual remedies employed against inflammation of the bladder were tried, but all without effect. All the symptoms became more aggravated; the frequency of micturition, and the pain caused by it, prevented all sleep. The urine continued loaded with pus and albumen—the quantity of the latter at each examination amounting to at least one-third. The clothes were constantly saturated with decomposed urine, so that our patient's condition was quite deplorable. Indeed such was the urgency of all the symptoms, that it was determined to administer ether and formally explore the bladder. This was done August 5th, after the patient had been under observation nearly four weeks, and a stone was felt at once. The ether was well borne.

Two grains of quinia were administered every four hours until August 9th, when the operation of lateral lithotomy was performed. Having made the usual incisions, and the knife having been passed into the bladder, the finger was introduced, and immediately came in contact with an outgrowth from the prostate: this seemed to be the hypertrophied so-called "middle lobe," partially severed by the knife. The stone was felt behind this, and seemed to occupy the entire cavity of the bladder, and to be closely grasped by the walls. An effort was made to extract with the forceps, but the opening was found too small, and the original cut in the prostate was enlarged with a straight probe-pointed knife, and the attempt to extract renewed,—again without success. A powerful pair of crushing forceps was now introduced into the bladder, with the intention of reducing the stone to fragments. It was found impossible to fairly catch the calculus, and though some fragments were broken off, its diameters were not sensibly diminished. The probe-pointed knife was again introduced, and a cut was made almost through the right lobe of the prostate. The stone was then with difficulty drawn from the bladder. Just as it freed the bladder, the forceps slipped, and it was necessary to finish extracting it by means of a scoop inserted behind it, aided by a finger in the rectum. In the bite of the forceps with the stone three firm polypoid growths were drawn out; one of these measured one and a half inches in length. The stone measured five inches and three-eighths in its shortest circumference, and six inches and a quarter in the longest. The weight of the main stone was one thousand and sixty grains, and of the fragments broken off one hundred and forty-five grains—making a total of twelve hundred and five grains, or two ounces, four drams, and five grains. The stone was of a globular shape, flattened on one side, with a concave surface, and externally was composed of phosphates.

I should have mentioned the fact that when the opening in the bladder was first dilated by the introduction of the forceps, a large quantity of pus flowed out with the first gush of urine. The bladder was examined by the finger, and several fragments of the stone removed. It was then carefully washed out, and the patient put to bed. He was under ether altogether thirty-five minutes. But little blood was lost, and the operation was well borne. Three hours after the operation he was found very restless, and suffering pain, with a desire to pass water. In making an effort to do so, a large clot was expelled from the cut in the perineum. His pulse was 140, and very feeble. One-third of a grain of morphia was ordered, with ice to wound if there was any bleeding. At 5 P. M. his pulse was 110, and he had had some sleep. At 8 P. M. pulse 96, and he expresses himself as feeling comfortable. The sheet under him was found wet with urine and changed.

August 10th, the morning after the operation, pulse 87; has slept well, and feels comfortable. To be kept under the influence of morphia, and ordered two grains of quinia every four hours.

Our patient continued to do well for several days. On the fourth day the bowels were moved with castor oil. On the sixth, it was noted that the wound did not present any evidence of repair; its surface had not cleaned off, and the edges were swollen and red. The day following he suffered with diarrhea, and his temperature ran up to 103½, and pulse to 116. For several days his morning temperature was slightly above normal, and his pulse about 90. His appetite failed somewhat; there was some disposition to wander, and bedsores began to threaten over the sacrum. He was kept on quinia and iron, and ordered to take stimulants, and as much nourishment as possible. The wound continued sluggish and showed no disposition to repair.

August 21st. For several nights has had one or more chills. On examining the wound, it was found infested with maggots. These were removed and the wound thoroughly washed out, and then sprinkled with pure salicylic acid. No more maggots appeared; the salicylic acid was kept up for several days. There was no improvement in his general condition.

August 27th. Some water passed from the penis, and continued to do so, but caused great pain, very similar to that experienced before the operation. Thinking that possibly a small fragment had been left behind and become lodged in the urethra, a sound was finally introduced, and immediately on entering the bladder grated on a stone. This I supposed was a mere fragment left behind at the operation; the sequel shows I was mistaken. At this time it was noted that the wound remained without evidence of repair, and that its edges were dry and presented the appearance of bacon rind.

The next day, having brought my patient under ether, a lithotomy staff was introduced through the urethra as a guide, and then the finger was passed without difficulty through the wound in the perineum, and at once came in contact, to my great surprise, with a stone almost as large as the first. This was extracted with considerable difficulty, the outer fragments of the stone being broken off by the forceps. These fragments weighed three hundred grains, and the main stone six hundred and ninety grains; its shape was oval, and the outer layers were composed of the phosphates. In addition to the stone, several fleshy masses, in a state of sloughing, were drawn out. The bladder was carefully examined, both with the finger and sound, and well washed out. The mucous membrane was quite rough, and as far as the finger could reach numerous polypoid growths projected from every side into the cavity of the bladder. The surface of these growths at points seemed encrusted with phosphatic deposits.

The operation was well borne. No knife was used, the finger being passed without difficulty through the inclosed wound. After the forceps had been passed into the bladder and the first traction was made, some fecal matter was noticed with the urine which escaped. It was found the wall of the rectum had given way, about an inch and a half above the anus. This opening was at the point where the first stone had lodged after its escape from the bladder, and from where it had been necessary to dislodge it by passing a finger into the rectum so as to get behind it. The tissues about the original cut being in a sloughing condition, and much softened, gave way on the slightest pressure.

From this time the feces escaped from the perineal cut, and our patient gradually lost ground. On several occasions small fragments of stone, and bits of gravel embedded in masses of mucus, were washed out of the cut. The pulse gradually rose to 120; the temperature, however, remained normal.

This condition remained without marked change for nearly three weeks, there being a gradual though not marked decline. Finally, complaining of inclination to make water, and pain in the penis constantly recurring, it was determined to once more explore the bladder, and to thoroughly wash it out. Ether was again given, and the bladder once more explored. A considerable quantity of sand embedded in mucus, together with masses of dead tissue lying free in the cavity, or still adherent to the mucous membrane, were felt. By means of the forceps some particles of sand were extracted, together with masses of sloughing tissue. Some of these masses were of considerable size, and evidently the remains of decomposing and detached polypi, while the rest were shreds and patches from the mucous membrane. The bladder was washed out with warm water, and after this the wound was daily washed with a weak solution of tinct. ferri chlor.

Death occurred on the 24th of September.

From the first to the last there was not the slightest evidence of repair in the wound. For some days preceding death there was evidence of uremic poisoning,—a condition of increasing drowsiness, and disposition to wander and mild delirium, from which, however, he could generally be roused to answer questions; and with a pulse reaching 120, while the temperature was normal. He died forty-five days after the first operation.

An autopsy was held some sixteen hours after death; the bladder and kidneys were alone examined. The peritoneum was entirely free from inflammation. The bladder was firmly contracted and empty, and the walls thickened. Externally the organ was not perfectly symmetrical; at the fundus to the left was a slight prominence, which proved to be a sacculated portion. On opening the bladder the original wound showed no evidence of repair, but was covered with white shreds of sloughing tissue. The mucous membrane was of a dark slate color, and quite soft. To the left, at the fundus, was a shallow diverticulum or sack. In this portion of the bladder alone the mucous membrane appeared quite normal. Here were discovered several small openings, admitting only a probe at first, but easily dilated and leading into sacks large enough to hold a marble. Several other sacks in different parts of the bladder were found.. About the neck and from the prostate were found the remains of the polypoid outgrowths, which were felt during the different operations. The greater portion of these outgrowths had sloughed off, leaving only the bases projecting some lines higher than the surrounding surface, and these were covered with dead tissue. These outgrowths were all below the line on which the ureters enter the bladder. The right ureter was somewhat dilated, and contained a small stone.

The kidneys were embedded in fat, which was so firmly adherent to the capsule proper, that it was stripped off before the organ could be exposed. The surface was somewhat rough; it was of a light mottled yellow color. The section was of light color, anemic and quite fatty. The pelves were somewhat dilated, more especially the calyces, and the mucous membrane was deeply injected. The papillæ were flattened, and at some points covered with a diphtheritic membrane. In both kidneys some small stones and gravel were found. In the left kidney an abscess presented on the surface.

The most apparent fact which presents itself, in considering the above case, is the oversight committed in not discovering the existence of the second stone at the time of the first operation, and removing it at once. It may, therefore, be of interest to consider the conditions which render the discovery of a stone more or less difficult. The usual position for a stone to occupy is at the base of the bladder; and here it is usually discovered without difficulty in a normal bladder, either in examining per urethram or through a lithotomy cut in the perineum. The stone may be displaced and found encysted. In this case, Coulson says, "the entrance to the sack may be narrow, or its orifice may be wide and a portion project into the bladder." Coulson figures, in his work "On Diseases of the Bladder," a bladder with three cysts in the posterior wall, and each of these occupied by a calculus. In another case, a single stone is encysted in the same part of the organ.

Sir Benjamin Brodie recounts a case where a stone was adherent behind the pubes, and was discovered with difficulty, and was then removed by tearing it away.

Erichsen gives the details of a case where, having removed a small calculus from a boy's bladder, his finger struck on some hard mass behind the prostate. Tearing away a membranous covering, a stone, which had been completely covered in, was discovered.

Growths projecting into the cavity of the bladder may render thorough exploration difficult. Tumors of the bladder, says Bryant, may be "warty, fibrous, villous, epithelial, or cancerous." And here may also be mentioned the hypertrophy of the prostate, especially the middle portion. In his Surgery, he gives the drawing of a case where the anterior and lower walls of the bladder are everywhere covered with polypoid growths.

In considering the case which has been presented, the stone I believe must have been held in the sacculated portion of the bladder at the fundus, and here was quite out of reach of the finger. This sacculated portion appears in the specimen quite shallow, and not likely to hold a stone; but it must be considered this condition is found after the bladder is quite empty and contracted, and had not been distended for weeks. During distension, this sacculated portion must have been a much deeper pouch than is now seen. The existence of the outgrowths from the base of the bladder, filling more or less completely the cavity of the organ, must have prevented the second stone from descending after the abstraction of the first. That the stone was fixed, is rendered probable from the fact that it was not for two weeks after the first operation that our patient began again to experience any pain. At that time, I suppose, the second stone having worked itself loose, fell against the neck, which is the sensitive part of the bladder. The exploration at the first operation was made by the finger alone, and this I believe was the cause of the failure to strike the second stone. Since then, making experiments upon the dead body, I find that the finger, introduced through a perineal cut, does not penetrate more than an inch to an inch and a half beyond the prostate in an adult, and that an instrument can be passed nearly four inches beyond before reaching the fundus. This shows at once how much of the bladder may remain unexplored if the finger alone is used.

Reviewing now the history of the case, and considering the conditions revealed by the post mortem, we must admit that a careful exploration of the bladder by an instrument of sufficient length must have revealed the existence of the second stone, and saved our patient three weeks of useless drain upon his powers. I have presented this case, hoping that it may prove a beacon-light, warning others of the dangers from unseen and undiscovered rocks. The case suggests, however, a much more important subject than merely the oversight committed during the operation, and that is an inquiry into the causes of lack of success in lithotomy in general.

Crosse has investigated the influence the weight of the stone has upon the mortality. In calculi weighing under one ounce, the mortality was 1 in 11.28. In calculi weighing two to three ounces, mortality was 1 in 2.18. Each of the calculi in my case would fall under this category; combined their weight would be between four and five ounces, and in such cases the average mortality is 1 in 1.66, or about two in three die. The weight of the stone does not bear a direct proportion to the size,—the specific gravity depending upon the composition, and varying greatly. Coulson says that stones of more than one and a half inches in diameter are always liable to cause more or less trouble in their removal; while a diameter of two inches and a circumference of six, is "the largest size which can be removed by the ordinary lateral operation without disorganizing the parts." Age has a marked influence on the result, and the percentage of fatal cases increases from infancy to extreme old age.

In this connection I may mention, as simply a matter of interest, that a recent monograph from Calcutta gives the analysis of one of the most successful series of cases of lateral lithotomy ever published; in fact, with one or two exceptions, it is the most remarkable. The monograph is written by Rai Ram Narain Dass Bahadoor, a native of India, who records his own experience,—two hundred and forty-eight cases with seventeen deaths, or one in fourteen and a half.

In the Medico-Chirurgical Society's Transactions, for 1862, Bryant has published a table containing all the cases of stone operated on at Guy's Hospital during the preceding twenty-five years. The entire number was two hundred and thirty; of these thirty-three proved fatal. Of the thirty-three fatal cases nineteen were submitted to autopsy; and of these every case presented evidence of renal disease, except two—one a child two years old, who died of acute bronchitis, and another of six, of pelvic cellulitis.

In commenting on this table, Bryant says:—"In seventeen of the nineteen cases, it must be observed that disease of the kidney in different degrees of severity existed, and that this disease was of no doubtful character, suppuration and degeneration being present in nearly all. In nine of these cases, peritonitis and pelvic cellulitis were also present. In two, pyemia was an associated cause. In one, extreme inflammation of the urinary passages; and in five instances, renal disease was sufficient to destroy. . . . The only two cases in which renal disease did not exist were, a child two years old, who died of acute bronchitis; and one six, who died of pelvic cellulitis, which was the result of an accident." The character of this accident was not given.

A consideration of the ages of these patients makes the influence of the renal disease more marked and apparent; they range from nine to seventy years. Five of them were under twenty; four between twenty and forty-five; and eight between that age and seventy.

The remaining fatal cases, fourteen in number, were not submitted to post mortem examination. The assigned causes of death were as follows:—"Three died from hemorrhage, four from peritonitis and pelvic cellulitis, and five are said to have sunk after the operation. In one case death was attributed to acute cystitis, and in another to pyemia after the wound had healed."

In this last list the assigned causes of death bear a striking resemblance to those found in the former table, when the existence of renal disease was proved by autopsy; so that it is fair to assume that a like condition would have been revealed if an examination had been obtained.

Bryant continues from the above:—"It appears to be clearly shown that in seventeen instances out of the nineteen, in which any definite information was obtained concerning the causes of death, the fatal result might in all fairness be ascribed to diseased kidneys, with or without any other complications. This visceral disease has been shown to have existed in the young and in the old, and eliminating accidents it appears to be the chief cause of death. . . . The fact that peritonitis and pelvic cellulitis were present in a large proportion of the cases examined need be no argument against this view, for physicians and surgeons are all well aware of the intimate connection which exists between renal disease and inflammation of the serous membranes. In medical practice this form of inflammation is, as a rule, the immediate cause of death in most examples of Bright's disease. It does not, therefore, appear irrational to doubt whether so many patients, either young or old, would sink with peritonitis and pelvic cellulitis after the operation of lithotomy, if they had not been rendered prone to such inflammation by the presence of the renal affection."

This table of Bryant, although it comprises a comparatively small number of cases as compared to others, has the advantage of giving the exact cause of death in each unsuccessful case, and is the only one of any extent that I know of which goes into this detail. Nearly all the writers on this subject speak in general terms of the influence of renal disease upon the result, but very few give any systematic information upon the subject, and are generally entirely silent upon the subject of diagnosis. Erichsen disposes of it, by saying that if the amount of albumen deposited after the usual test does not exceed one-tenth the entire amount of urine, the disease of the kidney will probably have no bad effect upon the operation. If, however, the amount should reach one-sixth, a bad result is to be expected; adding, however, that he has seen cases recover even under these conditions.

The importance of the subject leads me to consider somewhat more minutely the kind of renal disease complicating cases of stone, and the diagnosis of the various conditions.

In the London Lancet, June, 1873, will be found a lecture by Sir Henry Thompson, "On the influence of renal disease on the choice of operation for stone in the bladder." He describes the conditions included under renal disease, as, first, those known as Bright's disease, especially the "granular contracted kidney," and the "large smooth white kidney." Secondly, "another kind of change, which is wholly distinct from the foregoing, occurs in kidneys which have been frequently, or for a considerable time, the seat of calculus. The presence of minute foreign bodies, for the most part aggregations of uric acid crystal in the uriniferous tubes, at their orifices and around them, in the calyces, is the cause of injury to the structure affected, in a degree corresponding to the duration and magnitude of the deposited matter." The third class includes cases of saccharine diabetes. And the last those "resulting from diseases which habitually obstruct the outflow of urine. This affection also is not uncommon, and has also an intimate relation to our subject."

Simple dilatation or hydronephrosis rarely if ever exists as a result of calculus in the bladder. The dilatation is always associated with more or less pyelitis, and thus associated the kidney may be reduced to the condition of a mere sack.

Under the head of Pyelitis and Pyelonephritis, Ebstein, in Ziemssen's Encyclopedia, Vol. XV, discusses the subject of inflammation of the pelvis, with and without extension of the inflammatory action to the body of the kidney itself. Pyelitis may depend upon various causes; for our purpose, however, we may confine our attention to "those forms which arise where from any cause decomposition of the urine takes place." In the cystitis caused by stone, decomposition of the urine is almost constant. This "leads to the deposition of the ammonio-magnesian phosphates, and the urine is constantly alkaline and swarming with bacteria. Recently a role of great importance has been attributed to these bacteria, in the production of pyelonephritis and pyelitis." The vesical trouble always exists first. "In these cases the inflammation is rarely limited to the pelvis, but extends to the kidney itself." In the earliest stages there is hyperemia and increased secretion of pus and mucus in the pelvis. The body of the kidney at first is somewhat enlarged, its surfare red, with here and there pale spots, which can be traced through the cortical into the pyramidal portion. Later numerous small abscesses will be found, which coalescing form larger ones, until finally the kidney presents the appearance of a sack separated into sections by more or less perfect septa, and filled with pus. "With high powers of the microscope the uriniferous tubes are found filled with small shining granules; these granules are brilliant, highly refractive, and are not affected by the addition of acids, alcohol, alkalies, or ether." These granules are bacteria, and according to Klebs, they "excite the inflammation, causing a purulent pyelitis, and subsequently circumscribed renal inflammations." Renal calculi may also play an important part in the production of inflammation of both kidney and pelvis.

In view of the important influence which advanced disease of the kidneys exercises on the mortality of lithotomy, it is worth our while to consider how far we can detect its existence during life, and how far we can discriminate between the various conditions above named. "The diagnosis of pyelitis," says Ebstein, "can be made with certainty when we find the characteristic cells of the renal pelvis in purulent urine." These he describes as "flattened, laminated, caudate cells."

Neither the acid secretion of the urine, or the lumbar pains, are diagnostic. The specific gravity may be normal. Unfortunately these characteristic forms are rapidly destroyed in ammoniacal urine, and are therefore not available in the class of cases we are considering. Ebstein, however, continues:—"Two groups of symptoms will furnish the clue to the diagnosis, namely, the fever and nervous symptoms. When in connection with such an affection, chills and continued fever, with prostration of strength and a status typhosus set in, or when vomiting occurs, with a dry crusted tongue, accompanied by profuse sweats, hebetude, unconsciousness and delirium, the diagnosis of a so-called pyelonephrosis parasitica may be made."

From this description it is quite apparent that seldom, if ever, could a positive diagnosis of the existence and character of this renal disease be made in any given case of stone.

In regard to cases of dilatation of the urinary passages and organs behind some mechanical obstruction, Sir Henry Thompson, in the lecture above alluded to, states positively that an absolute diagnosis can not be made. All physical exploration is useless, and the presence or absence of pain on palpation is negative. "You may rely on it," he says, "that no method for arriving at anything like a certain diagnosis of pyelitis, with mechanical distension, is at present known." From such a source this statement must be considered authoritative.

Finally, in regard to the existence of Bright's disease, most frequently in the form of granular kidney, more certainty can be arrived at. The existence of tube-casts in the urine would be diagnostic in itself, and this occasionally happens; usually, however, there is no trace of them to be found, as they are destroyed by the ammoniacal urine. The existence of a quantity of albumen so great that it could not be accounted for by the presence of pus and blood, is a fact of much importance; and when this is joined to a urine of light specific gravity, the diagnosis may be made with confidence of the existence of granular kidney. Diabetes, of course, would be manifested by the presence of sugar.

From the above quotations, it is quite apparent that the question of diagnosis is a difficult one, and that the exact condition of the kidney is often impossible to make out.

Let us apply the result of the above discussion to the especial case just reported. Evidence of advanced renal disease existed, as manifested by the large quantity of albumen and light specific gravity of the urine. The patient was advanced in age, the symptoms were of long standing, and marked cystitis was present. All of these conditions combined to render the case unfavorable for operation, which was only justifiable as a last resort. The case was under observation for four weeks, and every means employed to mitigate the suffering and to ameliorate the symptoms; and if any success had met these efforts, further attempts at relief could not have been justified. All our efforts were without result, and the condition of the old man became daily worse, and more and more pitiable; so that it became apparent that his suffering would soon wear him out unless relieved. Under these circumstances the operation was undertaken. He lived for six weeks in comparative comfort, most of the time free from all the harassing pain he had before suffered. His death I do not believe was at all hastened by the operation. The fatal result was dependent on the advanced renal disease present, and which accounts for the entire absence of repair in the wound.

While I do not presume to escape from the responsibility involved in the blunder which left the second stone for three weeks in the bladder, I do not think the fatal result can fairly be attributed to it. The fecal fistula which followed the extraction of the second stone, can not fairly be charged to the operation. The general sloughing condition of the surface of the wound had so softened the tissues, that they gave way on the slightest pressure.

NOTE.—When the paper was read, the calculi, together with the bladder and kidneys of the above case, were presented to the Society.

CINCINNATI, O.

TRUE AND FALSE EXPERTS.*

BY J. W. GORDON, M. D., LL. D.

It is to be regretted that there should still be any controversy in regard to the question, "Who is an expert?" But such controversy is nevertheless still rife, even among learned doctors who undertake to instruct us on the subject. Those who have been connected with institutions for the treatment of the insane, are held by some to be the only competent and reliable experts in questions of the soundness or unsoundness of the mind; while others maintain that all educated physicians are justly entitled to speak as experts on such questions. The former insist that something more than a knowledge of medical science, as acquired from books and lectures, is requisite to constitute an expert in any department of that science. They contend that there must be such knowledge plus experience in its application to the particular forms of disease, involved in the case concerning which they are called to testify, before they are competent to testify at all. On the other hand it is maintained that every doctor of medicine may fairly be offered, and is entitled to be heard, as a witness, on any branch of his science. The law, at least in its living oracles, the judges, is sometimes puzzled with the question which is the bone of this controversy. Neither side is without reason; and it is not improbable that the final decision will follow a middle course, so as to admit both classes of doctors as experts; but to leave the court or jury free to say, whether the man of large practical experience in his profession, or in any particular branch of it, is not entitled to more weight as an expert, upon a question embraced in the scope of his observation and experience, than one who, without observation or experience, speaks from his knowledge of principles and doctrines as derived from books and lectures alone. The question is one of real difficulty, some courts ruling one way, and some the other. It is not a week since a learned court of Indiana, held a regular physician incompetent to testify touching the sanity or insanity of a defendant in a criminal case, because he had enjoyed no special opportunities to observe and treat the insane; and, in 1870, in a very distinguished case, a like ruling excluded five learned doctors from the witness stand. Other tribunals of at least equal learning and judicial rank, admit the testimony of all doctors on questions embraced in the scope of the science.

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*Continued from page 206.

Dr. Ray, in his treatise, "Medical Jurisprudence of Insanity," argues one side of the question with his usual force and ability. He says:—"It is not enough that the standing of the medical witness is deservedly high in his profession, unless it is founded on extraordinary knowledge and skill relative to the particular disease, insanity. Lunatic asylums and retreats for the insane, have so multiplied in our country, that patients of this class are almost entirely taken away from the management of the private physician, and consigned to the more skillful conductors of these institutions; so that many a medical man may spend a life of full practice, without having been intrusted with the care of a dozen insane persons. To such, therefore, a practical knowledge of the disease is out of the question; and thus, the principal inducement is wanting to become acquainted with the labors of those who have enjoyed better opportunities. If a particular class of men only are thought capable of managing the treatment of the insane, it would seem to follow, as a matter of course, *that such only are capable of giving opinions in judicial proceedings relative to insanity.*" And, with much more in the same vein, the learned doctor goes on to show how such a man of learning and experience may be sworn down by "others utterly destitute of any knowledge of the subject on which they tender their opinions with arrogant confidence." And he insists that, "instead of the unqualified and irresponsible witnesses now too often brought forward to enlighten the minds of jurymen on medical subjects, it would be far better if we had a class of men more or less like that of the *experts* of the

French, particularly fitted for the duty by a course of studies expressly directed to this end." This argument is resumed in other parts of his work, and has been ably supported by other men of equal ability; and, it must be confessed, that it seems to be unanswerable, where the law contains any provision enabling the courts to decide between men of the same profession, that one *has*, and the other *lacks*, the requisite knowledge and experience to constitute him an expert. It is plain, however, that if only those physicians who are intrusted with the supervision and treatment of the insane, should be allowed as experts in questions of sanity and insanity, the same question would still meet us further on. The inquiry would be limited, to be sure, to a less number of persons, but, as between doctors just introduced to the specialty, and those who have spent many years in it, the argument that excludes the general profession from the witness stand, would be as strong to exclude him who has just taken his place as physician to a house for the treatment of the insane. The question of exclusion would thus fall between those devoted to the specialty; and it is plain that its just application would finally exclude all but the most competent. But even when this end was reached, the jury would still have the right and be charged with the duty of considering the weight and credit to which the opinion of this highest expert might be entitled, and of giving it just such force as a factor of their verdict, as in conscience they might deem it entitled to possess. So, at last, the question would rest essentially where it now does, when every physician may take the witness stand as an expert, in every department of his profession. It must remain, at least until legislation shall interpose to change it, a question, as between doctors, not of their admissibility, but of their credibility, as witnesses. Of course, the right of any doctor to say, when called, whether he regards himself as an expert in respect to any question involved in a judicial inquiry, will always be respected. If he does so regard himself, he will be held legally competent, and allowed to testify. If he does not, his own opinion will exclude him from the rank of expert in the particular case. There is, it would seem, no means, therefore, of excluding incompetent men in the medical profession, from the rank of expert witnesses, but by suitable and effective legislation, which, it is conceived, may materially aid in the attainment of the object, in two ways, namely:

1. By exacting of every person who may desire to become a doctor of medicine, a fair moral character; and satisfactory evidence that he has consummated a thorough course of study in his profession, and possesses an adequate knowledge of the principles and doctrines of the sciences that unite in medicine. This object can be attained by legislation; and sooner or later will be, if our people do not lapse into barbarism.

2. With or without legislation requiring a more thorough education and a higher grade of character for admission into the medical profession, the law may specially provide for the selection among the most competent, of a class of experts, who, as Dr. Ray suggests, shall be "peculiarly fitted for the duty by a course of studies directed to this end;" and by the rejection of others not so fitted for the high and solemn duty. Such a selection of competent, and rejection of incompetent men, is clearly within the scope of legislation; and ought to be provided for at the earliest practicable moment. Medical jurisprudence and the general administration of justice, as far as dependent thereon, would gain much from adequate legislation directed to both the foregoing objects. Of course any legislation to be adequate upon the first, would have to be supported by appropriate penalties against its violators.

There can be no doubt that both learning and experience are essential to the true expert. It is the application in practice of scientific doctrines and principles that alone can give certainty and confidence in professional opinions. They are both implied in the term expert; and yet, as already seen, they are so variant in extent and degree, that, until the law shall interpose and provide agencies for the selection of some, and the rejection of others as experts, all must be admitted;

and the credit and weight of their opinions be left to the court or jury to which they may be submitted as evidence.

But when it is settled who shall be received as an expert, and who shall not be so received, another question of great importance confronts us. What mode shall we pursue to elicit the opinion of the expert upon the special question under consideration? Different law-givers have adopted different methods of examining their experts. In no country in continental Europe, so far as we are advised, is the same mode pursued as under the common law in England and America; and while it is certain that for some purposes and in many respects, some of these systems are better than ours, the difficulty of determining just how far the adoption of any of their provisions would require our entire system of procedure to be modified; and whether the requisite changes might not even require us to go deeper, and modify the substantive provisions of the law themselves, has made our legislation slow, and probably will still continue to make it slow, to adopt them. Still it does seem that some changes ought to be introduced in the interest of truth and justice, whose handmaid truth is. The general scope of all the facts on which the opinion of the expert is to be formed, ought to be agreed upon by the parties before the day fixed for the trial in which that opinion is to be given to the triers; and submitted to the expert for his consideration and judgment. If, as is generally the case, the parties could not agree upon the special facts of the case, and so frame a common hypothetical case, for the expert's opinion, they should be required to frame their respective hypothetical cases, and submit them to each other and to the experts a sufficient time before the trial to allow a careful analysis and thorough study of them, so that the expert might be able to form his judgment upon careful deliberation touching their significance of health or disease; and if of disease, of the kind and degree thereof. And as the opposing parties would have the same opportunity to study both hypotheses as would thus be accorded to the expert, their examinations would be conducted with intelligence; and so, on the one hand, tend to elucidate and give point to the general opinion of the expert, if it were well-founded; or to correct, impair or destroy it, if, on the other, it were erroneous, imperfect or false. It is difficult to perceive how such a requirement could injure any party in his substantial rights, while it seems perfectly clear that it would promote every just cause, that depends on truth for its success. It would give the expert a fair chance, which, as such examinations are now generally conducted, is denied him. There are many questions constantly rising in the course of every lawyer's business, which the oldest and ablest lawyer will not undertake to answer until he has carefully examined the authorities relating to them, and taken ample time to consider and determine from all the lights he can bring to bear upon them, what may be the law. Yet our legislation, and our courts under it, assume that the physician and surgeon are competent to answer upon the spur, what may be the pathological significance of a long, crude, complex, and often contradictory and imperfect hypothesis, embracing a man's history, and that of several generations of his ancestors. The assumption is as unfair to the administration of justice, as to the doctor; and an outrage upon both. But, as the law now stands, there is only one power in the state capable of correcting it, and that is the will of the doctor himself, who may say, and truly, that he is not able to give an opinion upon it, without time to consider it. This ought to be done, until the legislation of the state corrects the stereotyped blunder of society, by which it is made necessary for the protection of scientific truth, and of the doctor who is called as its organ.

But, while insisting thus, upon the necessity of having the case, on which the expert's opinion is to be taken, framed into an hypothesis and submitted to him before he is required to appear in court and testify concerning it, there are not wanting learned doctors of medicine who regard such a statement of the case itself as an obstacle in the way of our reaching the truth. Thus, Dr. Grissom tells us:—"It is a familiar fact that the usual course of introduction of expert testimony in the courts, so far as insanity is concerned, is for the purpose of sustaining the position of counsel for the prosecution, or the defense, with the strange anomaly of a witness announcing the conclusions of a most recondite science, and straightway being cross-examined concerning the same, as though to demonstrate his ignorance or untruth, by a layman, presumed to be a stranger to the very science, of which the expert is supposed to have special knowledge." He, therefore, declares that, "we should demand the enactment of statutes remanding to a commission of experts the examination of the accused, that the plea of lunacy may be disposed of, when presented, before issue is joined or trial begun. Compensation for this service should be made by the state only. And it may well be claimed that the observation of the commission should extend through such a period of residence in an insane hospital as will supply ample data for exact conclusions. To this might be easily added, the visits and observations of a physician especially sent by the defense to coöperate with the commission." And he concludes that until legislation authorizing such a course can be had, "we should labor to place the expert in the position of *amicus curiæ*." And while he seems, unfortunately, not to comprehend the relation which the expert sustains to the case in which he is called to testify, he does not hesitate to condemn a learned judge who, in strict accordance with law, "refused to allow a medical gentleman, present in court, who had heard all the evidence, to testify to his opinion of the soundness of mind of the accused." Of course he means, so to testify, upon the evidence which he had heard. After much more of the same sort and drift, he concludes that "the natural responsibility of the position of a medical expert, is *heightened* by the imperfect systems existing whereby the physician is often hurriedly called to give an opinion based on miscellaneous facts, gathered by laymen, with slight opportunity for observation of the accused, with the forlorn hope that he may confirm or confute the plea, offered at the last moment, or during the very progress of the trial for the first time. Surely this procedure is unworthy of that degree of civilization which our country has reached." And he adds to all this a lamentation that medical men have come to be regarded "as governed by false sentiment, or imaginative fancies, at war with the best interests of society;" and then, as if to show his lamentation groundless, concludes by proving that there are medical men, and eminent ones too, who, following neither "false sentiment," nor "imaginative fancies," have, nevertheless, for mere sordid gain, set themselves "at war with the best interests of society"—even with truth and justice. This terrible charge should have been considered, and perhaps resented here, had not the most distinguished name at which it was aimed, seen proper to retort it in "An Open Letter" of more than a dozen octavo pages, without attempting to disprove it; and had not his ablest defender excused the accused, on the ground that, "society is largely responsible for all this sort of thing"—that is, false expert testimony for hire and pay; and added: "Our system of judicature tolerating corrupt litigation"—he resides in Texas—"the demand, human nature remaining what it is, will always find a supply." (See Journal of Insanity, July, 1878, page 164.) Such answers to such a charge from such quarters, may fairly excuse others.

Dr. Grissom's essay was not referred to, however, with any intent or desire to be carried by it into the unhappy controversy of the current year; but only to show his hostility to our present methods of hearing what expert witnesses may know in relation to any given case. He seems to think that the expert should hear the witnesses testify to the pedigree, history, conduct and symptoms of a person who claims a right, or makes a defense, on the ground that he has been insane at some previous time; and, from what he thus hears, assuming the truth of so much of it as may have won belief in his mind, pronounce his opinion touching the sanity or insanity of such person. It would be useless to give the many manifest objections which exist to such a course. It is enough to say that it leads to confusion by confounding the function of the expert with that of the jury, or court trying the case. It places the expert, too, in a condition to elude and defy cross-examination; for it gives us only the tangled and contradictory mass of testimony which has been delivered by all classes of witnesses, as the foundation of his opinion. The very ruling that Dr. Grissom quotes only to disparage and condemn, evinces the wisdom of the law in the prevention of such a system. It will be long before the law will abandon for it, the method of taking "particular facts and, assuming them to be true, to ask whether they indicate insanity," or not. In other words, the hypothesis will survive the method of allowing the expert to hear the testimony at large, and testify upon his judgment of what it proves.

As little will the principles of the common law allow of the substitution of a commission of experts to settle the fact of sanity or insanity, before the trial of the question of guilt or innocence; and these principles are embodied in the constitution of most of our states, and of the societies which created the states. Such a commission would be dangerous to the rights of the citizen, whom it would deprive of trial by jury; and whose trial it would postpone at the pleasure of the commission, and perhaps forever; for it might be that "ample data for exact conclusions," might never be supplied by any "period of residence in an insane hospital." And when it is remembered that the proposed commission is to be in the pay of the state, the party having an interest adverse to that of the prisoner, it would effectually dispose of all the provisions of the Bill of Rights interposed by the people to protect the citizen accused of crime against the government. Such reflections might be pursued and multiplied continually; for they oppose themselves in every direction to the adoption of such a scheme. It is not likely, therefore, to be soon adopted; and may be safely left here, to await the exigencies of the future.

It remains only to submit a few considerations upon the hypothetical case, now in general use, as a means of eliciting expert testimony where such testimony may be admissible.

In every trial, each party may claim that, upon the true state of the case, he is entitled to the verdict of the jury. Of course, in every such controversy, there are many facts common to both sides; but each asserts some, which the other denies. If these common and particular facts are framed into hypotheses on each side, the difference in the facts of the two cases will often be so great that the answer of the expert upon each will be favorable to the party presenting it. In such case, the controversy before the court or jury will not involve the expert's opinion; but will spend itself upon the question, which of the hypotheses presents the true case in evidence? Whenever that is ascertained, the expert's opinion becomes decisive of the result of the trial. In such a state of evidence, the expert's opinion is the analogue of the charge of the court, which always instructs the jury to the effect that, if the facts shall be found to be as claimed by the plaintiff, their verdict must be for him; but if, as contended by the defendant, then their verdict must be for him. The expert, in the same way, founds his opinion always, upon the truth of the facts presented in the respective hypotheses. The parties suspend their success or failure, on the truth or falsehood of these facts. If the jury find a single fact against the party making the hypothesis, and the expert has not declared that fact to be unimportant to his conclusion, then that will be sufficient to render worthless in the trial the expert's opinion. The jury should in every such case wholly disregard the opinion, not because it is not a sound opinion upon the facts stated, but because the facts do not constitute the case on trial. And this shows the advantage that is derived in such investigations, from the use of these hypotheses. After they have been stated, and the expert's opinion given upon them all, it is proper practice to ask him to state whether at all; and, if at all, how far any one fact enters into his opinion and judgment upon the whole. In this way, a party may relieve himself from the necessity of proving immaterial matters; or his adversary may fix the necessity of proving every fact assumed, upon him, by showing that it is material. It is equally proper for the party adverse to any hypothesis, to show, by cross-examining the expert, the immateriality of the several facts composing it; and so to shake the judgment of the expert upon the whole.

It frequently happens, however, that experienced and wise experts conscientiously disagree in regard to the significance of the same hypothesis; and it is in such cases only that cross-examination should be employed to weaken the adverse opinion, by showing every point in which it may be found contrary to, or unsupported by authority, experience or reason. In all such cases of conflict, the question between the doctors must be left for decision to the judge or jury. Nor should it be matter of complaint in such cases, or in any, that the cross-examination of the expert touching his opinion and the grounds of it, is made, ''as though to demonstrate his ignorance or untruth, by a layman, presumed to be a stranger to the very science of which the expert is supposed to have special knowledge.'' The intelligent and candid man of science, if true to himself and truth, runs no risk of being involved in the ignominy of ignorance or falsehood by the examination of an ignorant layman, or any other; for every question must be intelligible or unintelligible. If the latter, the doctor can say so; and that is the end of it. If the former, then it involves an opinion pertinent to the issue, or foreign to it. If the latter, it is disposed of when its irrelevancy is pointed out. If the former, then the doctor either knows the response his science authorizes, or he does not. In the latter case, let him confess his ignorance with simple candor. It is his only way as a true man. If the former, let him answer with equal candor, as his science warrants. The truth is, there is too much reason to believe that the cross-examination is decried, not because it is conducted by an ignorant layman; but because it exposes an ignorant and pretentious expert. Nor is it true that the educated lawyer should be regarded as ''a layman presumed to be a stranger to the very science of which the expert is supposed to have special knowledge.'' The science of medical jurisprudence is common ground to both professions; and it would be a shame to both, to say that, the many learned books on the subject, have left the legal profession so ignorant that its members do not know how fairly to examine and cross-examine a medical expert.

In conclusion, we have seen that knowledge is the basis of all valuable testimony; and that expert testimony touching changes in the natural and normal condition of places or persons, is not practicable until the expert knows what that natural and normal condition was. Out of this fact arises the necessity of a State Board of Health, supported by the entire medical profession. The necessity for thoroughness in all medical and medico-legal investigations has been here insisted on, and the consequences of a want of it illustrated by sinister examples. And, finally, it has been shown, that fair-play demands that our code of procedure be so modified as to place the medical expert in possession of the hypothesis on which he is to give his opinion, a sufficient time before he is called to testify, so that he may study it thoroughly, and come upon the witness stand prepared for his duty there. And here it may be added, that the court should possess the power to make experts such reasonable allowance for their labor in preparing and delivering their testimony, as upon the testimony of their professional brethren may appear to be just; and that this allowance should be taxed as part of the costs, and paid by the losing party. This would place the expert on the same footing as other witnesses, in respect to his compensation. He would cease to be the stipendiary of either party. The state, like other parties, would, of course, be primarily liable for the fees of experts called on its own behalf.

INDIANAPOLIS.

A CLINICAL LECTURE ON STRICTURE OF THE URETHRA.

BY CHAS. C. F. GAY, M. D.

Surgeon to the Buffalo General Hospital.

Gentlemen: In these latter days—so replete with the spirit of advancement in surgical science and device, by virtue of which the physical ills, to which human flesh is heir, are mitigated—we find the field of labor not what it was in the early days of the fathers. The old-fashioned or general practitioner is obliged to stand aside in order to make room for the new-fashioned practitioner or specialist. The human body has been mapped out into well defined regions; some of which are subdivided into other regions, and each becomes the subject of special study. Thus we have eye and ear surgeons, orthopedic and gynecological surgeons, and surgeons for the genito-urinary organs, etc. The general practitioner retires from one region after another, until there is no place for him to stand, unless it be upon his dignity or reputation, which he may have acquired by long and arduous service and devotion to duty. Room must be made for the specialist, who, armed with superior knowledge and sharper instruments, comes in to possess and occupy his chosen special field of study and labor.

This is all very well in itself considered; I find no special fault with this arrangement, provided the specialist will stick to his specialty. Division of labor is advisable and wise; by it we are able to attain unto greater proficiency in our art. He who devotes all his time and talents to some special branch, either of medicine or surgery—provided he be well grounded in knowledge as a general practitioner—ought certainly to become more proficient than he who attempts to learn and know all things pertaining to the profession, since the probabilities are that he who attempts too much may, perchance, find himself unfitted to do any one thing well.

The field of medicine and surgery is too broad, and the work too great, for the capabilities of all men. One man may be capable, dextrous and expert in the performance of one duty, and sadly deficient in his capabilities to perform another duty. It, therefore, betokens good for one to engage in special studies, since the greater proficiency in any single branch of study, the greater will be the honor accredited to him who engages in practice, and benefit to him who is practiced upon.

The old-fashioned surgeon must, however, still be recognized and respected wherever merit is not held at a discount.

The surgery of the genito-urinary organs, in importance, is probably second to no other specialty. There is no other more worthy your attention and study than this; it is a large and inviting field, as is attested by the large number of able and zealous workers in it. Men, at home and abroad, are to-day engaged in this study, and are sedulously cultivating this special and fascinating field of surgical science, and writing books exclusively devoted to it.

That branch of this specialty which claims our immediate attention is that of stricture of the male urethra.

If you will note the very large number of cases which have been treated during the past two or three months in this hospital, you will fully come to realize how much of our time is consumed in the management of these cases. In manipulating the urethral outlet, we are obliged to "make haste slowly." Great patience is required, if we would do this work well. During my present term of service, you have witnessed nearly, if not quite, all the operations for relief of urethral stricture. Some of the cases have been attacked, as they say in military parlance, by gradual approach with the filiform bougie; others by direct assault with the knife: and in no case has there been failure to relieve the stricture, and no death has yet followed the treatment we have employed. Operations for relief of stricture may be stated in their order of merit thus:

Dilatation. Internal urethrotomy.
Divulsion. External urethrotomy.

To restore the urethral outlet to its normal condition, it is advisable, if practicable, to employ, first of all, means least liable to cause irritation, pain or inflammation. The preliminary instrumental treatment should be simply explorative in character, not persisted in too long, nor abandoned too readily, unless it becomes at once apparent that a second or third trial to reach the bladder will be useless. An interval of three or four days or more of rest should be allowed a patient, before repeating the same process of instrumentation, in order to give time for all traces of irritation to subside.

I have a good illustration of the practice here advised in the case of Cronk, twenty-eight years of age, who entered the hospital on the 16th of March last. I have been able to obtain the following history of this case:

Cronk first contracted a gonorrhea when he was but fourteen years of age. He had gonorrhea the last time in 1869, or about eight years ago. He now has incontinence of urine. He could not control his urine for the past year, more especially for the past five months. It constantly dribbles away, wetting his pantaloons. He can not pass a stream of urine, if he tries; neither can he prevent its dribbling away from him. He seems in a truly pitiable condition; has an anxious and careworn expression of countenance; has chills; is nervous and restless; is discomforted and discouraged, and has come some distance in order to see if relief can not be given him in this hospital.

Without an anesthetic, three several unsuccessful attempts have been made to pass a filiform bougie into the bladder, and each trial has caused an acute epididymitis and orchitis, first upon the left side, then upon both sides. Acute urethritis was caused by the gentlest manipulation. Each trial was followed by severe chills, notwithstanding quinia, in full doses, was given. It was found, therefore, necessary to desist from further attempts to pass an instrument through the urethral canal. Hyoscyamus and camphor were now given in place of quinia, as the chills partook much of a nervous character. Blue mass, five grains at night, and fifteen grains of potas.

iod. three times daily, were ordered, and the latter continued for ten days. Solution of acetate of lead, alternating with poultices to the scrotum, constituted the local treatment.

On April 23d, a scrotal abscess was opened, which discharged freely.

April 27th. The orchitis having now subsided, the patient was etherized, and the urethra divulsed by a Gouley divulsor; after which a No. 12 nickel-plated steel sound passed readily into the bladder, withdrawn, and then a flexible catheter was passed and retained thirty-six hours. On its removal, a No. 12 sound was again introduced. Immediately after the operation, ten grains of quinia were ordered, and one-fourth of a grain of morphia, to be repeated two or three times at intervals of five to six hours.

May 1st. Patient comfortable; no tendency either to return of urethritis or orchitis. The process of causing still greater dilatation now began, and was continued until the patient was discharged, when a No. 14 (English scale) sound was easily passed. The penis was small. The left testis, which at one time was very large, was now reduced to its normal size; the patient had no longer chills; his appetite returned; his incontinence was cured, and his urethra became accustomed to the presence of instruments and was no longer hyper-sensitive, and he gained rapidly in flesh and strength.

You will observe that treatment in this patient's ailment extended over a period of about five weeks before an operation could be undertaken. Indeed, the stricture was for a time severely let alone, and the patient's general condition attended to. Any attempt to explore the urethra only resulted in causing acute urethritis; and the three attempts that were carefully made with the filiform bougie, were made at intervals of nearly a week, but so soon as the scrotal abscess discharged its contents, we were able to operate on the canal without causing acute and dangerous urethritis.

The next case I show you is one upon whom I shall have to perform external urethrotomy. The house surgeon, Dr. Stockton, will read to you the history of this case.

"Gideon Patterson, aged thirty-four years, came into hospital for relief of great distress in his urinary organs, not knowing apparently the nature of his ailment. He is single, a painter by trade, and has been afflicted since the spring of 1876. He entered the hospital May 8, 1877. He says he received an injury of the urethra one year ago, which was followed by inflammation and difficulty in voiding urine, and at that time a catheter was used.

"In January, 1877, a swelling appeared in the perineum, which formed into an abscess, broke, and several ounces of pus were discharged. Since this time his urine has, in part, escaped from this opening. On the 12th instant, Dr. Gay made trial to reach the bladder. First, a No. 2 steel sound was employed, then bulbous bougies of various sizes, then a trial was made with the filiform or whalebone bougie; but the instruments passed into a false passage, and therefore could not be made to enter the bladder. Taking a No. 12 steel sound, he could readily pass it three inches within the canal, when it could be distinctly felt to glide over the septum of the false passage. Having consumed so much time in these several trials to reach the bladder, and which caused more or less urethral irritation, Dr. Gay thought it advisable and discreet to desist from further manipulations to-day; but as there exists considerable swelling at the perineum, the doctor laid this open with the knife, making an incision an inch and a half in length, in order to prevent further infiltration of urine and also to give escape to pus."

May 19th. This patient is before you this morning for an operation, and I have determined to etherize him, and do whatsoever is necessary to be done. I find the same difficulty arising whenever I attempt to pass instruments as before. Every form of instrument, large or small, persists in escaping from the normal urethral canal and entering the false passage. A No. 12 steel sound is now passed three inches from the meatus, and is felt to meet with an obstruction; but after a little time, by steady pressure, passes along down within the false passage, nearly or quite to the neck of the bladder. I now partially withdraw the instrument, and commit it to the hands of an assistant, who holds it firmly in place, while I cut down upon it, or very nearly upon it, so that only a very thin membrane interposes between the beak of the sound and my knife. I make an incision an inch in length, and now by pressure with my finger applied against the beak of the instrument, the sound is crowded away from the septum and enters the bladder with the greatest facility. It is next withdrawn and a flexible metallic catheter passed, to be used until the wound closes, but removed daily or every other day, in order to keep it cleanly. The patient is ordered ten grains of quinia and half a grain of morphia every six hours, until it shall be determined whether urethral fever develops or not.*

We have another case of some interest to show you.

James Cather, aged forty-three years, presents himself on account of stricture. He says he had gonorrhea some years since, but has not contracted the disease lately. He makes a small stream of water and it is forked. A No. 2 sound does not enter the meatus; neither will a No. 1 pass. The stricture seems to be located at the meatus. With a meatotome I incise the meatus quite freely. Now a No. 8 sound will pass, but is hugged tightly by the stricture, which is apparently half an inch from the external orifice. I now pass a tenotomy-knife along the side of the sound and divide the stricture, and, as you will observe, a No. 12 instrument readily passes into the bladder. This sound will remain *in situ* for an hour or more, then removed and glycerine injected, and on to-morrow a larger sound will be used.

In the normal urethra, the meatus is more or less contracted. It is provided with this peculiar mechanism, and may be likened to the nozzle of a hose; it is contracted in order to project the urine from the person. But in case of stricture in any part of the urethral outlet, if the meatus act as an obstruction to the introduction of instruments, it will be competent to make reasonable division of it; but it will be unfortunate if a too free incision destroys its contractile power, and causes the meatus afterward to gap too widely open.

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* This patient was discharged from the hospital on May 28th, just nine days after the operation, in a very happy frame of mind. He believes a twofold cure has been wrought upon him, namely, cure of his stricture and cure of impotence. He says for the first time in many months he now has erections.

It may be true, and doubtless is true, that the size of the normal urethra is conditioned by the size of the flaccid penis. The statements of those who thus affirm ought to be accepted as final until disproved. I do not wish to make written strictures upon the alleged size of urethral strictures. Although the caliber of some urethræ is represented as very large, and regarded as incompatible with health, and might therefore be held as proof of previous existence of gonorrhea or present gleet, I can not avoid the conclusion that if a man's urethral canal admits readily of a No. 24 bulbous sound, he has a urethra at least large enough for all the practical purposes of an ordinary urethra, and one also healthy enough to guarantee immunity from the pains and penalties of divulsion, dilatation or cutting. But the enthusiastic specialist has discovered that stricture is almost always present and never absent; that in size it is variable, ranging all the way from the size that will scarcely admit the passage of a filiform bougie, up to the size that will readily allow the entrance of a No. 24 sound. Can any one wonder why the old-fashioned practitioner should be incredulous and amazed at the progress of modern urethral surgery! I hope it may not be regarded as impertinent to suggest that it is barely possible, when surgeons stretch the urethra too often and much, it enables them to stretch their conclusions.

It must be admitted that great advance has been made in our time in the management of stricture cases, and very many important improvements made in the device of instruments. The filiform bougie I have found indispensable in many instances, but I am sometimes foiled in attempts to pass it, when I have afterwards succeeded with a No. 8 or No. 10 nickel-plated conical sound.

I am still an adherent of the fogy belief that if a stricture once exists it always exists; or, in other words, if a stricture case be neglected after the urethra has been put upon the stretch and dilated to its utmost capacity, it will again return to the condition in which it was found when treatment began, unless the patient provides himself with a sound, and introduces it once or twice a week during the remainder of his life. If I am ever disabused of this idea or fallacy, I shall take pleasure in expressing obligations to the specialist.

BUFFALO, N. Y.

YELLOW FEVER.

BY J. B. MARVIN, M. D.

Late Resident Physician to the Yellow Fever Hospital; Professor of Chemistry and Microscopy, Hospital Medical College; President of the Louisville Microscopical Society, etc., etc.

When yellow fever first began its ravages in the south, Louisville declared against quarantines, opened wide her doors, and bade the fleeing refugees from the plague-smitten districts to come and freely partake of her hospitality. It soon became evident that among the many refugees who came to our city that cases of yellow fever would occur; and the mayor and board of health speedily set about preparing a suitable hospital for the reception and treatment of such cases.

The hospital.—One of the buildings of St. John's Hospital, beautifully situated on a hill three miles south of the city, and but a short distance from the junction of the Cincinnati and Nashville railroads, was selected. Two pavilion hospitals, containing respectively eight and ten rooms, were also erected and thoroughly equipped, a corps of experienced nurses engaged, and the writer appointed resident physician. These buildings were admirably adapted for the required purposes. The rooms were large and well ventilated; the partitions did not extend to the roof; all the rooms communicated with each other, and opened on a wide hall-way.

Number of patients.—The first patient was admitted on August 5th, the last on October 17th. Total number admitted, eighty-nine; of which number seventy had genuine yellow fever—sixty-six being among southern refugees, and four originating in Louisville, among the inhabitants of the so called "infected district," near the Louisville and Nashville railroad depot; fourteen had intermittent fever, and five were not sick, children whose parents were sick in the hospital. The recoveries number fifty-eight; deaths thirty-one, from yellow fever. When we take into consideration the fact that all of these patients were moved to the hospital after the disease had become well marked,—some developing the disease while *en route* to this city, others being moved from Paris, Tenn., a distance of two hundred and fifty miles, and other southern towns, after being sick for several days,—the above mortality is not large.

Symptoms.—None of the cases were seen in the incubating stage of the disease. Most of the cases were in the second stage, some in the third stage; black vomit, etc., having occurred. The symptoms on admission were generally a hot, dry and harsh skin; in some cases that had been moved a long distance the skin was cold, clammy and bathed in profuse perspiration. Eyes bright and glistening; conjunctiva badly injected; the sclerotic tinged yellow, except in cases of several days' standing, when the eyes were heavy and lusterless, face flushed, great pain in small of the back, legs and head; tongue red and coated; bowels costive; great irregularity in pulse and temperature—the pulse running from thirty-five to one hundred and forty beats per minute, temperature ranging from ninety-seven to one hundred and six degrees. There is no correspondence between the pulse and temperature; frequently a high temperature being associated with a slow pulse, and *vice versa.* The respirations are quick and shallow. The perspiration is generally strongly acid in reaction, and possesses a most peculiar odor, difficult to describe, but once recognized never forgotten—a dysenteric, rotten-hay or slacking-lime smell, not cadaveric as generally described by writers.

When the disease is well established, the fauces are swollen and of an intense red color; the tongue is enlarged, very red, the papillæ being very prominent, the edges are indented. At first there is a thick white or creamy coating on the surface; frequently the tip, edges and narrow space on each side of the median line are clean and not coated. As the disease progresses the coating gradually disappears; and in severe cases the papillæ become obliterated, its surface becomes smooth and cracked, very red and dry, resembling a piece of raw beef. The tongue bears no resemblance to the pale, flabby and enlarged tongue of malarial fever.

The skin is generally moist, and becomes tinged yellow in varying intensity. In some cases there is a herpetic eruption on the body and around the mouth and nose; severe urticaria occasionally occurs. Sudamina are frequent. A considerable proportion of convalescents suffer with furuncles and shedding of the epidermis.

The bowels become loose, the stools being very offensive, and generally black and tarry in appearance. Occasionally the stools resemble pea-soup, or they may be composed of shreddy mucus mixed with blood or bile, or be composed of blood and resemble black vomit.

The urine is high-colored, varying from amber to a greenish coffee color. This high color is due to an admixture of blood or bile, or frequently simply to a large excess of the normal pigment. The odor may be normal, faint and sweetish; in some cases it is very disagreeable, something like carburetted hydrogen or decayed leaves. The quantity is generally diminished; the reaction is acid, very seldom neutral, and never more than feebly alkaline, no matter how much blood or bile there may be in it. The specific gravity varies from 1.004 to 1.030; the average being 1.020. It is high in the beginning of the attack; diminishes as the disease progresses; rising again as convalescence ensues. A lowering in the specific gravity, with an increased quantity of urine, is a favorable symptom. Sugar is never present, unless the patient has had previous diabetes mellitus. Bile, in varying amount, is present sooner or later in the *great* majority of cases. Albumen is present in *every* case,—the amount varying from a trace to nine-tenths the total amount of urine passed. The greater the amount of albumen, the graver the prognosis. In severe cases, albumen always appeared as soon as the *second* day; in mild cases, it may not appear until the fourth or fifth day. Albumen generally disappears from the urine as convalescence sets in; but it may persist until the patient is up and able to walk about.

Associated with albumen are granular tube-casts, stained greenish brown or yellow with bile, renal epithelium, more or less disintegrated, and large quantities of fine granular *dêbris*. The amount of this granular *dêbris* is much greater than I have ever seen in cases of acute Bright's disease from other causes. Renal derivations generally appear on the second day in severe cases; in mild cases, they may not be found until the fourth or fifth day. Vesical epithelium, in varying amount, is generally present in the urine. In some few cases there was a marked shedding of vesical epithelium preceding the appearance of renal derivations. No symptoms are of more value in the prognosis of a case than the amount of albumen and renal derivations. The smaller the quantity of albumen and tube-casts, the milder the attack, and *vice versa*. Renal derivations usually disappear as convalescence sets in, but they may persist in severe cases until the patient is able to be out of bed. In a small proportion of cases there were vesical and renal hemorrhages in considerable quantities. Urea varies from normal to less than one-half the normal amount; most generally it falls below normal. The urine speedily undergoes decomposition; in fact decomposition may take place in the bladder. Large quantities of vibrios and bacteria may be present when the urine is voided.

The breath.—Pure glycerin was smeared in the center of a clean, new glass slide, and held an inch or two from the nostrils or mouth of the patient. After a few minutes' exposure to the breath, the slide was examined under the microscope. Large quantities of very active vibrios were revealed, also roundish oval bodies, bacteria.

The blood.—A drop of blood from the finger was received on a slide, covered, avoiding pressure, and examined. The corpuscles were jagged and crenated; frequently the red globules were breaking up, forming as it were daughter-cells. In severe cases, especially after black vomit had occurred, there was a very large increase in the number of white corpuscles, the proportion frequently being as one white to five or ten red corpuscles. Scattered among the corpuscles were found vibrios and bacteria, frequently five or six very active bacteria being in the field. More extended observations, in this and other fevers, must be made before attaching undue importance to the existence of these bodies in the blood and breath. Every possible precaution was taken, in making these examinations, to avoid contaminations. The examinations were made with a Tolles $\frac{1}{10}$ inch immersion objective and a "B" ocular.

The stomach.—Irritable stomach and nausea, in varying intensity, are present in all cases. After the stomach had been emptied of food, the first ejections consist of glairy mucus and epithelium, streaked with blood, bearing a striking resemblance to the rusty sputum of pneumonia. Bilious matter was very frequently ejected, sometimes in considerable quantity. Pure blood was frequently ejected in large quantities; later in the disease, vomiting of blood frequently alternating with and following black vomit. The vomit is acid, patients frequently complaining of its burning the throat and mouth.

Black vomit occurred in about fifty per cent. of the cases, the amount varying from a few spoonfuls to more than a pint at each ejection. This symptom has not proved as unfavorable as is generally believed. Ten cases have recovered after having had black vomit. One case, a mulatto, having vomited a large quantity of it on three different occasions, with intervals of one and two days, yet recovered. The coffee-ground or black vomit consists of blood, more or less broken down and digested by the gastric juices and bile, epithelium and fat globules. There were also found large quantities of vibrios, an oval (not recognized) fungus, and frequently very large crystals of hematoidin.

Hiccough and retching are constant symptoms, and may prove very distressing. In some severe cases there are spasmodic contractions of the diaphragm, causing most violent and painful retching; the contraction is so violent in some cases as to partially raise the patient from the pillow. Generally the epigastrium is not markedly sensitive on pressure. In those cases having a temperature ranging over one hundred degrees, great restlessness and nervousness are present; in those cases in which the temperature ranges from ninety-seven to one hundred degrees, the patient lies in a stupid, lethargic condition. A hemorrhagic tendency is present in all cases. In all severe cases, hemorrhage varying in amount occurs from some portion of the body—the eyes, nose, ears, mouth, rectum, uterus, bladder, kidneys, etc.; most frequently from the mouth and nose. The hemorrhage is passive, generally an oozing, and is easily controlled; in some cases, however, it comes in a stream from the nose. These passive hemorrhages are caused either by an alteration in the blood itself, or some change in the epithelium lining the vessels and mucous membranes, or by both.

The unfavorable symptoms are a fiery red, dry and cracked tongue; irritable stomach, with constant nausea and vomiting; great pain over the bowels; suppression of urine; passage of feces in bed; rejection of food and medicine by the stomach and bowel; great delirium, getting out of bed, etc.

Before death muscular twitchings frequently occur, the extremities get cold and clammy, and large drops of sweat appear on the face and neck. The temperature may fall to 97 degrees; immediately after death the temperature begins to rise, and may go as high as 106¼ degrees under the axilla, the body remaining warm for twelve hours or more. Spare-built persons, with light hair and complexion, resist the disease better than stout, plethoric persons, with dark hair and complexion. The average duration of the disease in fatal cases is four days.

Diagnosis.—The diagnosis of yellow fever is not as easily made as one would be led to believe from the literature of the subject. It presents a striking resemblance, in many respects, to pernicious intermittent and bilious remittent fevers. The chief diagnostic points are the peculiar smell, tongue, great irregularity of pulse and temperature, and the constant existence of albumen and renal derivatives in the urine.

Pathological anatomy.—Cadaveric rigidity occurs very early, and is very marked. The skin is of a bright yellow or saffron color, quickly changing to a purplish black over the dependent portions of the body. In severe cases the entire surface of the body becomes purplish black within six hours. The mucous membranes are tinged yellow, and the cellular tissues are stained of a bright yellow color.

The peritoneum and mesentery may be normal; in a considerable proportion of cases they are more or less congested.

The stomach, as a rule, does not appear congested, as stated by writers upon this disease. The organ may be greatly distended with gas, filled with black vomit, or almost empty; more or less black vomit is always present. There is no marked injections of the veins—no ecchymotic spots; the mucous membrane is pale, there being no hemorrhagic erosions or ulcerations, no evidences whatever of acute catarrh. In only one case was there found thickening of the mucous membrane and enlargement of the rugæ. On examining a thin section under the microscope the glands are normal, the villi are not changed; the free extremities of the villi contain blood, which has oozed from the capillaries and is piled up under the epithelium. The microscopic examination clearly proves that the hemorrhage in this organ is passive, and not dependent on active congestion. The clinical history of the vomit confirms the microscopic examination. The changes stated to have been found in the stomach are post mortem changes.

The intestines generally show no marked changes; they always contain more or less black vomit. In some cases there are patches which are badly congested. In one case intussusception was found in three different places. A section of the gut, when examined under the microscope, may appear normal; in other cases, the villi and glands are in a state of acute catarrh.

The spleen presents no marked deviation from health; generally normal in size and consistency, and frequently darker in color. In cases giving a history of previous malarial trouble, the organ was considerably enlarged. On microscopic examination, the organ appears normal, except in those cases having had malarial fever, when the pigmentation peculiar to malarial fevers was found.

The liver varies in color, being bright yellow, orange, nutmeg or mottled, or normal. The organ is generally enlarged, the enlargement being very slight in some cases. It is very firm, tough and elastic. On section, the hepatic cells are found in a granular condition, frequently stained with bile; nucleus pale and frequently obscured by oil globules. Within and around the cells are large quantities of oil globules, there being a fatty infiltration as well as fatty degeneration. There is frequently an increase in the connective tissue, with a consequent pressure upon and destruction of the neighboring cells. In one case, aged twenty-seven years, not a drinker, who had suffered at intervals for two years with malarial fever, there was an enormous increase in the connective tissue, visible to the eye, giving the organ the appearance found in cirrhosis. On section, all the appearances of cirrhosis were found; in parts there were fatty degeneration and infiltration, and a large amount of a delicate fibrous growth, resembling areolar tissue, minus the fat.

The kidneys are congested, and in some cases considerably enlarged; the capsules do not readily peel off; the malpighian tufts are prominent. On section, tubal and intertubal hemorrhages are frequently found. The tubes are choked up with fine granular *débris* and epithelium; in some parts the tubes are empty and denuded of epithelium. Fatty degeneration, slight in degree, is frequently found.

The bladder may present no changes; it may be full or empty and slightly contracted. In those cases having suppression of urine for any length of time before death, it is badly congested, the mucous membrane showing large ecchymotic spots. The gall bladder always contains thick yellow or blackish bile; in some cases it is enormously distended, the mucous membrane being congested.

The lungs and pleura presented no constant changes. In several cases there were recent pleuritic adhesions; in one case there was severe pneumonia. In some cases the lungs are completely collapsed. The color is generally dark and mottled; ecchymotic spots are frequent.

The heart may be full or empty. In some cases there is marked fatty degeneration, the walls being pale and friable. Frequently the organ is normal. The pericardium always contains more or less reddish fluid, the amount varying from one to six ounces. No lesions were found in the cerebrum, nor constant changes at the base of the brain. In some cases which had had marked delirium, congestion and softening were found at the base. The spinal cord was not examined.

Treatment.—On admission the patient is given a hot mustard foot-bath while under the cover; he is covered with one or two blankets, sufficient to keep up the perspiration; profuse and indiscriminate sweating, by means of blankets or otherwise, is injurious. If the bowels are at all costive, half an ounce of castor-oil, with fifteen drops of turpentine, are given. If the patient objects to oil, or there is much nausea, with foul tongue, one grain of calomel and three or four of bicarbonate sodium are given every hour until four doses have been taken. If there is much nausea or retching, a pint of tepid water, containing a dessert-spoonful of mustard and salt, is given to empty the stomach. In all cases five grain doses of quinia were given every two or three hours until cinchonism was produced, a sufficient quantity being given daily to keep up a moderate cinchonism. If the stomach was irritable, the quinia was given in thirty grain doses by enema every six hours. In a few cases, after cinchonism had been induced, ten grain doses of salicylate of sodium, every six hours, were substituted for quinia, apparently with good effect.

Whenever the skin became very hot and dry, the patient was sponged off with cold water, to which a few ounces of alcohol had been added, the sponging being repeated as often as necessary. Cracked ice and ice-water, in small quantities at a time, were allowed *ad libitum.* If the tongue became very dry, red and cracked, dessert-spoonful doses of turpentine emulsion — containing twenty per cent. of turpentine — were given every three or four hours. If this was rejected, fifteen drop doses of dilute muriatic acid, every three or four hours, were substituted. A pinch of salt placed on the tongue would frequently relieve hiccough; in severe cases, tincture of valerianate of ammonia was better. Lime water, subnitrate of bismuth, creasote or chloroform, in small doses, was useful in quieting the stomach and relieving nausea. When there were present nausea and frequent vomiting, with desire to go to stool, with pain in bowels and great tenesmus, the following prescription was most valuable:

℞ Bismuth, subnitrate, ... ʒ ij
Creasote, ... gtts. viij
Lime water, ... ℥ ij. M.
Sig. Dessert-spoonful *pro re nata.*

If there was much tenderness over the bowels, a blister, six by six inches, was applied; in mild cases, a mustard-plaster or turpentine stupe was substituted. In stout, plethoric persons six or eight leeches were applied over the bowels; the leeches generally die from the bad blood. If there is any difficulty in passing urine, or diminution in its quantity, half an ounce of the infusion of digitalis with ten grains of acetate of potash, is given every two or three hours. This proved a most valuable remedy, only failing in two cases. In addition, a mustard-plaster, cupping, or alternate applications of warm and cold water over the bowels, were useful. Hypodermic injections of one-eighth of a grain of muriate of pilocarpine were tried in several cases, but without apparent benefit.

For nervousness and sleeplessness, chloral hydrate is the *best* remedy; give thirty grains each of chloral hydrate and bromide of potash, in one or two ounces of warm milk, by enema. This combination has a most happy sedative effect; it also lowers the temperature. In some cases, tincture of hyoscyamus has a happy effect.

Patients are very sensitive to the effects of opium and its salts; *very small* doses, either by the mouth or rectum, producing alarming narcosis. Opium did not appear to interfere with the proper functions of the kidneys; its use was discontinued solely on account of its effect on the brain. A number of patients were given morphia while *en route* to this city; they never came from under the influence of the drug, but lay in a stupid, lethargic condition, pupils contracted, and died with all the appearances of narcotic poisoning. In some patients, who were constant eaters of morphia, most distressing appeals were made for it. Various devices were resorted to in order to deceive them; about a fourth of a grain of quinia in powder was given, and followed by thirty grains of chloral hydrate. If this failed, a hypodermic injection of eight or ten minims of *water* had the desired effect, quieting the cries of the patient and putting him to sleep.

If hemorrhage from the nose or mouth became free, a spray of Monsel's solution (half strength), always checked it. For hemorrhages from the stomach and bowels, if deemed advisable to check them, ten minims of Monsel's solution were given every hour. For renal hemorrhage, ten grains of gallic acid were given every three hours. In some cases fifteen minim doses of aromatic sulphuric acid were substituted.

Stimulants are required in every case. Port wine proved most acceptable and beneficial, it being retained when the stomach rejected everything else. Acid wines and *champagnes* disagreed in *every* case; complaints of their bad effects were so general, that they were discontinued. Brandy and whisky were given in all cases, either by mouth or rectum.

During convalescence, ale and beer were much relished and were freely given. During the first two or three days of the attack, the less food taken the better. Milk, chicken-broth, beef essence, etc., according to the desire of the patient, were given in small quantities every hour. During convalescence, oyster soup, soft boiled eggs, crackers, toast, etc., in moderate quantity, are given. Great care is required to prevent the patient from over-eating. Not a single relapse occurred in this hospital, which is largely attributable to the great caution exercised in regulating the dietary of the patient.

General remarks.—Yellow fever is a continued fever, marked by slight remissions. Of the severe form of the disease there are two distinct types—one characterized by a hot, dry skin, and a temperature ranging from one hundred degrees to one hundred and six degrees; in the other variety the temperature may rise to one hundred and two degrees for the first day or two; it then falls and never rises above one hundred degrees, generally ranging from ninety-seven to one hundred degrees; the skin is cold and clammy, and is more markedly yellow than in the first variety; the pupils are contracted; this latter variety is the more fatal.

The disease is clearly dependent upon a specific blood poison, as yet not demonstrated by the microscope, unless we regard the changes found in the blood as detailed above, as the *cause* rather than a *result* of the disease. By adopting the theory of specific blood poisoning, the symptomatology of the disease is readily understood. Every carefully observed and recorded fact bearing on the contagiousness or infectiousness of the disease is of great importance. As bearing on this subject, I wish to record the following experience:

I remained at the hospital for a month as resident physician; eat and slept on the ground-floor in the building with patients, made daily examinations of the various excretions and secretions of the patients, and held frequent post mortem examinations. I never had the slightest symptom of the disease. There were twenty-eight employés on the premises as nurses, cooks, washer-men, etc., in constant contact with the patients. Physicians and clergymen from the city paid daily visits to the hospital. The ladies of the Flower Mission paid frequent visits, going through the wards distributing flowers, etc. These parties, returning to the city, came in contact with numerous persons; yet not a single individual who remained at the hospital, or who visited it or came in contact with parties visiting it, ever had yellow fever or any disease resembling it. The clothing and baggage of the patients were not burned or disinfected, but were stored in the building in which the nurses and myself slept and eat.

Only such hygienic regulations were adopted as would be enforced in any well-regulated hospital. The rooms were well ventilated and kept scrupulously clean. The bedding and bedclothes were kept clean, and whenever soiled were aired and washed. The mattresses were never burned. Vomit, dejecta, etc., were not allowed to remain in the rooms, were emptied in pits about a hundred yards from the wards. The vessels, bed-pans, etc., were kept clean; if they smelt at all, they were aired or sprinkled with carbolic acid. Dead bodies were not allowed to remain in the wards, but were carried to the dead-house.

Whenever the nurses or myself felt "out of sorts," quinia was freely given. I had been troubled greatly with malaria before going to the hospital, and was taking quinia daily; at the hospital I suffered less from malaria than when in the city.

LOUISVILLE, KY.

SULPHATE OF CINCHONIDIA.

BY A. G. CRAIG, M. D.

I commenced prescribing the sulphate of cinchonidia in the summer of 1875. During this summer there had been, all over the United States, an unprecedented rain-fall. In July and August the Ohio river was over its banks, and the "back-water" was up all the creeks, and covered the low bottoms, destroying the corn and other crops, almost matured. After the wet season was past, the river fell rapidly, and during the months of August and September there was, all along its course, an offensive stench produced by the decaying vegetation. During these months there was more sickness in this locality than I had ever known before or since in the same length of time. There were cases of intermittent, remittent, and typho-malarial fevers in almost every family. There was a malarial element in almost every form of disease; even children with cholera infantum required an antiperiodic.

About this time I received a sample ounce of the sulphate of cinchonidia from Powers and Weightman, of Philadelphia. I prescribed it at first for cases of intermittent fever, and it proved so efficient that I afterwards prescribed it for remittent and typho-malarial fevers with equal success. Since that time I have not used more than one ounce of the sulphate ot quinia in my practice, but have used several hundred ounces of the sulphate of cinchonidia with entire satisfaction. I do not consider cinchonidia better than quinia, but I do consider it equally efficacious in curing malarial diseases, and in some cases, where there is an idiosyncrasy, or prejudice existing against the use of quinia, it is to be preferred. My experience has not been limited, and I am satisfied that there is little if any material difference in the virtues of the two medicines. I consider cinchonidia equal to quinia as a tonic, antiperiodic, and antipyretic, and in all diseases where there is a malarial complication. Cinchonidia can, at the present time, be bought at about one-seventh the price of quinia; and this ought to commend it to the country practitioner, who has to furnish his patients with medicine, many of whom are extremely poor. Cinchonia is not as reliable as either cinchonidia or quinia, and I have discontinued its use in my practice altogether. Quinia or cinchonidia is readily made into a pill by the addition of glycerin, about one drop to each three grains—a three-grain pill not being inconveniently large. In obstinate intermittents, five drops of Fowler's solution, after each meal, will prove a valuable adjuvant to the cinchonidia. Sulphate of cinchonidia is very soluble in spirit of nitrous ether; one ounce will dissolve readily fifty or sixty grains. In cases where there is torpid liver and constipated bowels, the following is a favorite alterative and cathartic pill:

℞ Leptandrin,	gr. xxx;
Podophyllin,	gr. iv;
Extr. colocynth. comp.,	gr. xx;
Hydrarg. chlor. mit.,	gr. xv;
Extr. tarax.,	q. s.

M. ft. pil. No. xv. Sig., one or two pills *pro re nata.*

There are a peculiar cachexia and anemia produced by malaria generally present in persons who have had repeated attacks of malarial fever, and there is a constant tendency to relapse, in spite of cinchonism. Accompanying this condition there is an enlargement of the spleen, and a pale, bloodless, and icteroide hue of the skin. In these cases iron is the great remedy combined with quinia, or cinchonidia, and strychnia.

℞ Cinchonidiæ sulphatis,	ʒ ss;
Pilulæ ferri carbonatis,	ʒ iss;
Strychniæ sulphatis,	gr. i.

M. ft. pil. No. xxx. Sig., one pill *ter in die.*

The above remedies seldom fail to reduce the enlarged spleen to its normal size in a few weeks, and restore the patient to health.

In the management of cases of malarial cachexia, the removal of the patient to a healthy locality, when practicable, is of prime importance.

VEVAY, IND.

A CASE OF BRIGHT'S DISEASE.

BY B. R. HELMS, M. D.

On May 24th I was asked to see a child three years old, who had always been very healthy, except during the previous six months had suffered from malaria. The symptoms found were fever, thirst, anorexia, pain in the loins and vomiting, and there was also general anasarca, especially a fullness just below the eyes. The child was treated with quinia and iron, on the supposition that the dropsy was due to anemia, a result of malaria. There was no improvement, and a sixteenth of a grain of elaterium was given three times a day with no good result. Dr. Mathes was called in consultation, and bitartrate of potash and jalap were substituted for elaterium, but with little benefit.

On examining the urine its specific gravity was 1040, acid reaction, albumen in large quantities, and some sugar. Elaterium was again given, one-eighth of a grain every three and a half hours, which relieved him of the dropsy and dyspnœa, and left him almost a skeleton. The latter part of June, the pulse was 144 and respiration 40, at which time the dropsy again appeared.

An abscess formed in the right testicle and one on the inside of the right thigh, and were discharged. Veratrum viride was given to control the pulse, and jaborandi. The anasarca decreased somewhat, the appetite improved and became ravenous. The specific gravity of the urine was now 1019, albumen in abundance, and tube-casts were present. On the 28th of June I found the child in a semi-comatose condition; but after this time the albumen decreased until there were only traces of it in the urine, the child gained strength and the pulse came down to eighty,—the elaterium and jaborandi being continued with cod-liver oil and quinia, the elaterium in one-fourth of a grain dose. I saw the child last on the 11th of July. It passed under the care of a noted "cure-all," and died some weeks afterward. The points of interest in this case, are the effect of the jaborandi on the albuminuria, and the large doses of elaterium given without injury.

Carlisle, Ind.

Reviews.

A Clinical History of the Medical and Surgical Diseases of Women. By ROBERT BARNES, M. D., London, Censor of the Royal College of Physicians, etc. Second American from the second and revised London edition. With one hundred and eighty-one illustrations. Philadelphia: Henry C. Lea. 1878.

Dr. Barnes gracefully and worthily dedicates this second edition to Dr. Fordyce Barker. This appropriate recognition will commend the volume to American readers.

Those who had the pleasure of making the acquaintance of Dr. Barnes at our International Congress, those who heard him either in conversation or in public discussion — always frank, clear, positive and instructive, and with almost impetuous utterance as if of an overflowing fountain — will be reminded of our distinguished visitor in almost every page of his book: the book well represents the author.

We shall suggest no comparison between it and other well known volumes upon the same subject. Nevertheless we pity the doctor who, having any considerable practice in diseases of women, has no copy of "Barnes" for daily consultation and instruction. It is at once a book of great learning, research, and individual experience, and at the same time eminently practical. That it has been appreciated by the profession, both in Great Britain and in this country, is shown by the second edition following so soon upon the first.

Want of space forbids an analytical notice of the work, even if such notice should be expected of the second edition of a book. The author remarks in his preface:—"The book has been subjected to conscientious revision. It is hoped that some of its defects have been either removed or lessened. By pruning redundancies and by rearrangement, space has been gained for the addition of new matter. The size of the book has not been increased; yet room has been found for a new Chapter on the Relations of Bladder and Bowel Disorders to the proper subject-matter of the book."

We heartily wish this second edition even a greater success than that attained by the first.

The Identification of the Human Skeleton—A Medico-Legal Study, to which was awarded the Prize of the Massachusetts Medical Society for 1878. By THOMAS DWIGHT, M. D., of Boston, late Professor of Anatomy at the Medical School of Maine. Boston: David Clapp and Son, Printers.

The result of a criminal trial or of a lawsuit sometimes depends on the identification of a skeleton, or of parts of it. While in such cases the duties of an expert are of great importance, they are attended by many difficulties, because of the different statements made by authors in relation to the proportions of various parts of the skeleton. The purpose of the author is to lessen these difficulties by giving practical directions how to work, and by testing the truth of the statements of authors, and when these disagree, indicating which is most trustworthy.

The following questions are briefly but very intelligently considered: First—are the bones human? Second—do they belong to one or more individuals? Third—what is the sex? Fourth—what is the age? Fifth—how long is it since death? Sixth—what is the height? Seventh—if certain parts are wanting, can we estimate their size? If so, how?

The conclusions given are the result evidently of much original study and examination, and they are compared with those arrived at by other observers.

Because of its condensed, yet clear statement of facts, and its entire freedom from unnecessary words, this essay may be recommended as a model to writers on scientific subjects.

The author makes free use of the graphic method, and his numerous charts and tables add much to the value of his work. J. R. W.

Transactions of the Medical and Chirurgical Faculty of the State of Maryland, at its Eightieth Annual Session, held at Baltimore, Md., April, 1878. Baltimore: Ines and Company, Printers.

The first ten pages of this book are occupied by the proceedings of the society. Following this is the opening address on Homœopathy, by the president, Prof. A. B. Arnold, M. D. He thinks that if such men as Liebig, Trousseau, Virchow and Sir James Simpson entered the polemical arena against homœopathy, he may likewise do so. He treats his subject in a dignified manner, and shows that most of Hahnemann's followers in this generation are his apologists, admit that his pathology is indefensible, his theory of chronic diseases not worthy of a serious thought, and the belief in the augmented potentiality of medicine by dilution as sheer nonsense.

Dr. S. C. Chew gives an address full of interest, commemorative of the late Prof. Nathan R. Smith. Accompanying this is a likeness of the deceased.

The annual oration is by Prof. Ira Remsen, on Chemistry in its Relation to Medicine. He begins his oration by a blow at the practice of requiring a thesis from the candidate for graduation, by saying—"Eleven years ago, in company with ninety-nine others, I was proclaimed fit to enter upon the career of a medical man. My erudition in medical matters was exhibited in a thesis on Fatty Degeneration of the Liver, a subject of which I was and am profoundly ignorant. I had in fact never seen a liver which had undergone fatty degeneration, nor a patient who possessed or was supposed to possess one." . . . The address is a review of the discovery and application of some of our most important drugs; of the detection of impurities in the air, water, etc.

Among the papers deserving special mention are the Report on Surgery, by Dr. Allan P. Smith; Urethral Stricture, by Dr. Thomas R. Brown; Practice of Medicine, by Dr. John S. Lynch; Spontaneous Generation, by Prof. F. Donaldson, M. D.; and General Paralysis of the Insane, by Dr. I. D. Thomson. A. M.

A Manual of Operative Surgery. By LEWIS A. STIMSON, B. A. (Yale), M. D., Surgeon to the Presbyterian Hospital, and Professor of Pathological Anatomy in the Medical Faculty of the University of the City of New York. With three hundred and thirty-two illustrations. Philadelphia: Henry C. Lea. Cloth, 477 pp.

While one can hardly say there is need of another work on operative surgery, this one of Dr. Stimson will be of great service to medical students and the younger members of the profession, as it has the merit of describing most of the surgical operations performed on the human body in a plain and simple manner. Operations that can only be described in general terms, as the removal of tumors, etc., are excluded.

In description the author has avoided that minuteness of detail in non-essentials, which Mr. Syme condemned so vigorously in the teaching of the present day, as "the fiddle-faddle instructions, not only for using but even for holding the knife, which sufficiently denote the poverty of the intellect whence they proceed, and the lowness in aspiration to which they are addressed." Dr. Stimson evidently takes it for granted that those who consult his book will have a slight knowledge of anatomy, a little mechanical skill, and some common sense. These qualifications he has the right to expect in even the tyro in surgery, but which are unfortunately often wanting in those of many pretensions. Whenever a knowledge of details is necessary to the correct understanding and performance of an operation, they are described very fully.

The book is well printed, and profusely illustrated. But few of the engravings, however, are original, most of them having been taken from works with which the profession is familiar.

J. R. W.

Clinic of the Month.

A Case of Polyarthritis Suppuration, with Mycosis Endocardii.*—A young man, twenty-four years of age, was taken sick on September 6, 1877. At first he had general malaise and difficulty in swallowing. A few days later he had pain and swelling of various joints. He was admitted to the Seraphim Hospital, Stockholm, September 13, 1877.

Both wrist-joints, especially the left, and the left hip, knee and ankle-joints, were then considerably swollen and tender; and these joints were the seat of violent pains. There was fever, though the temperature never rose above 39.2°. The swelling about the left wrist extended both upward and downward. On the 9th of October an incision was made over the joint, and a large quantity of laudable pus was evacuated. In the meantime the patient's general condition, which during his whole sickness had been very poor, did not undergo any improvement; the fever continued, the pains were as violent as ever, his strength failed, and a rather faint murmur became audible with the systole, both at the apex and base of the heart. The area of precordial dullness was not increased. During the last days the heart's action was irregular, but otherwise the cardiac phenomena remained unchanged. The patient died on the 14th of October.

At the post mortem examination an abscess was found over the wrist, communicating with the joint, which contained discolored pus; the cartilages of the joint were destroyed. The left hip and knee-joints were also full of pus; the cartilages more or less extensively altered, the capsule of these joints disorganized, and the surrounding connective tissue in some

* Translated from *Nordiskt Medicinskt Archiv*, by John A. Octerlony, A. M., M. D.

places infiltrated with pus, and in other places in a state of gangrenous disintegration. In one of the pulmonary valves was a perforation nearly a centimeter in diameter, whose border was formed of loose discolored tissue in process of disintegration, and consisted of detritus and cells in a state of fatty degeneration, and of masses of microphytes; these latter were arranged in strings like beads, or loose or aggregated in large numbers forming balls. In the immediate neighborhood the valve was considerably thickened, yellowish in color, and permeated by a great abundance of microphytes. In the mitral valve was a small circumscribed spot, presenting the same process with accumulation of microphytes, and a superficial and limited inflammatory softening of the valve. There was parenchymatous inflammation of the kidneys and spleen.

REMARKS ON OVARIOTOMY.—Rarely can an operation have such a fate as ovariotomy. In 1843, Dieffenbach, the boldest of all surgeons then living, wrote that ovariotomy was murder, and that every one who performed it should be put into the dock. Now we save lives with it by the hundred, and the omission of ovariotomy in a proper case would, in these days, be looked upon as culpable negligence.

But the operation of ovariotomy has also something peculiar to itself. No operation requires so much experience and courage. In no operation is the most important qualification of an operator — the power of meeting unexpected difficulties — brought into so clear a light. One never knows what may be encountered; if there be adhesions and where, what the pedicle may be, its length, and so on. And in no other operation is the terrible fact so true, that no operator in his first twenty cases will have such good results as in his second or third twenty cases. This terrifying proposition is true as a matter of fact, and it is well that the public is ignorant of it; for no operator can begin with his twenty-first case, and must, therefore, get over his "reign of terror." This can certainly not be said of other operations. I am quite convinced that many a young surgeon has done his first amputation as well, and with as good a result, as his fortieth or fiftieth. Speaking truthfully, this could not be said of ovariotomy; and it must be insisted upon, that every beginner has previously assisted at twenty or thirty operations.

When I look back twelve or fifteen years, and recollect how slight were the preparations in my clinic for an ovariotomy, and how it was performed as compared with the precautions now taken, no one can wonder that the mortality has been so much diminished. After I had obtained all the information I possibly could from reading all the works I knew of, I at last began to operate. My first six cases—certainly most unfavorable cases—all died. This so discouraged me, that I ceased to operate, and I spent two of my holidays in going to Spencer Wells in London and learning there. Then I operated again and with better results; but still lost half my patients. Then drainage still further improved my results, and death from septicemia, which had been by far the most frequent cause, was much less frequent; and, since the adoption of Lister's antiseptic, there has not been a single example of septicemia, and the proportion of recoveries has been in the highest degree satisfactory.

Thus, the antiseptic method, and next the careful avoiding of any cooling of the blood, which is so serious when the peritoneum is exposed, lead to results which were previously quite unattainable; but we must not, therefore, avoid the trouble of a very careful preparation. This care yields a rich return. Formerly, the patient was placed on the table, the tumor removed, the peritoneum cleansed as much as possible, and the wound closed. Now, after a soap-bath, the patient's abdomen is shaved, cleansed with ether, and several times washed with a five per cent. solution of carbolic acid. The whole surface, except the abdomen, is carefully covered with very warm towels, and a hot-water India-rubber bag is placed between the feet in order to restore to the mass of the blood, by warming the periphery, what is lost by laying bare a large surface of peritoneum. And our sponges and instruments are placed in a five per cent. carbolic solution, and our clean washed hands are disinfected by the same solution. The room and all liquids and objects are also warmed, if possible; and, lastly, a carbolized cloud from two steam-sprays is directed upon the abdomen, and the operation begins. A dense carbolized mist covers the whole field of the operation, until, at the conclusion, a protective Lister's bandage has been applied. (Dr. J. N. Von Nussbaum, in the British Medical Journal, October 26, 1878.)

TREATMENT OF WOUNDS OF THE SUPERFICIAL PALMAR ARCH BY ACUPRESSURE.—A perusal of the various English works on surgery does not impress me that this simple method is practiced as frequently as it might be. I record a case which occurred lately in my own practice. A lad, whilst cutting some toffee from a plate, cut his ulnar artery through, just at the point where it takes its bend toward the radial side of the palm (in the "line of fate"), and when brought to my house, was losing blood rapidly, per saltum, from a deep wound about an inch and a half long. I applied Esmarch's bandage, and tried to find the bleeding points, but to no purpose. I then plugged the wound and bound the hand to a dorsal splint firmly, so as to get pressure on the vessel by means of the tension of the palmar fascia, and applied compresses over the trunks of the radial and ulnar vessels. He soon returned to me bleeding as profusely as before. I then determined on acupressure, and taking a stout harelip-pin, passed it through the tissues about half an inch from the edge of the cut, under the artery, and out again to a corresponding distance the other side of the wound, and placed the limb again on the splint. This had the effect of entirely stopping the bleeding; the needle was removed on the fourth day, and the entire wound had closed by the end of the week.

I am well aware of cases of a like nature being treated by passing a harelip-pin under the radial and ulnar at the wrist; but although it has been effectual, it is not without its dangers; and I contend that in cases of wound of the superficial palmar arch (and this is not the first I have treated similarly), acupressure at the point of injury should be resorted to at once. As a matter of anatomical fact, the blood-vessels, as it were, cleave to the palmar fascia, even after a long escape of blood; and, with ordinary anatomical precision, and a knowledge of the possible contingencies of irregularities, should be secured. A double needle might be used in some cases, to make quite sure—one on either side of the division in the vessel. I need hardly say that these few remarks apply more particularly to wounds involving the superficial arch, although the "deep" arch is topographically not so deep or so ungetatable by this method as might be imagined. (Edward Bellamy in Lancet.)

THE USE OF JABORANDI.—Within the past year or two jaborandi has become a very popular and useful drug at Bellevue Hospital. In uremia and in acute and chronic parenchymatous nephritis, it has accomplished especially good results.

In uremia it is a very effective substitute for the old hot-air bath, acting more quickly and surely. As it has been shown to increase markedly the excretion of urea, it is probably more efficient than the baths in relieving uremic phenomena. A patient was brought into the hospital some weeks ago, suffering from convulsions and delirium. She had no edema, but her urine was nearly solid with albumen, and contained small casts and blood. She was given a drachm of the fluid extract of jaborandi, hypodermically, and ten minims of Magendie's solution. In fifteen minutes she was sweating profusely, and the convulsions had ceased. She was restless and wandering in mind for the next twenty-four hours, but had no other bad symptoms. A drachm of jaborandi was given every other day subsequently, and in a week the albumen had nearly disappeared from her urine, and she felt quite well.

Cases of chronic nephritis have been treated with the drug very satisfactorily. Some who did not improve or get rid of the edema under digitalis and potassium, have shown immediate improvement under jaborandi. It is given in drachm doses every other morning, the patient being kept in bed until dinner-time, when the sweating is over. It is better not to give it at night, as the bed-clothes become saturated with perspiration and sleep is disturbed and uncomfortable.

Jaborandi weakens the heart. It is dangerous when the pulse is poor and the system debilitated. If given to a patient in this condition with uremia, he falls into a cold perspiration, and edema of the lungs, coma and death follows.

Yet it has been used several times in the treatment of pulmonary edema in doses of ten to fifteen minims, every one or two hours. The autopsies have shown the usual changes.

It has been used also in pleuritic effusions, but does not seem to "sweat out" the intrathoracic liquid very much. Besides, it produces a nausea and salivation not at all pleasant.

The drug loses its effect in some cases, and the dose has to be increased. The usual variety in its action has been noted. Sometimes it causes salivation only; most frequently salivation and diaphoresis. If the dose is carefully regulated, nausea and vomiting need not be a frequent complication. The urine is, in cases of chronic Bright's disease, somewhat diminished in amount, unless renal congestion or an acute nephritis is complicating the case. Jaborandi has proved, so far, of most certain service in the chronic stages of Bright's disease, and in uremia brought on during its initial attacks. When an acute attack is lighted up on a chronically inflamed organ, and when the system has already become weakened and anemic, the drug may be useful, but it will also be dangerous. (The Medical Record, Nov. 9th.)

PHYSIOLOGICAL ACTION OF PILOCARPINE.—At the clinic of Constantine Paul, experiments were made with pilocarpine, and the following results were reached:—(1) Subcutaneous injections of one-third of a grain and over have the same physiological action as the use of jaborandi. (2) In smaller doses, pilocarpine produces only diaphoresis, and in some cases checks diarrhea. (3) If a dose of one-third of a grain is given, salivation follows, and perspiration appears from the injection of only $\frac{1}{32}$ of a grain. (*Memorabilien*, Oct. 23, 1878.)

PRURITUS VULVÆ TREATED WITH SULPHUROUS ACID.—Dr. E. B. Stevens, Obstetric Gazette, October, says:

I was recently consulted by a lady complaining as follows: Severe pruritus of the labial surfaces, extending to the external genitals, with an erysipelatous rash covering these surfaces, and at the same time an abundant leucorrheal discharge. She had applied a variety of lotions to the itching, burning parts, without avail:—the leucorrhea had been of sometime standing; general health good; supposes herself approaching the menopause; age forty-six years.

Upon examination found an erysipelatous rash covering the labia and flaming up over the pubic region towards the lower surface of the abdomen; it was angry-looking and eczematous, with a watery exudation; on introducing the speculum found the rash occupying the labial surfaces and extending up over the outlet of the vagina. The superior portion of the vagina, and cervix of the uterus were perfectly healthy in appearance, whereas I had expected to find abrasion of the os, or some condition of chronic inflammation, as the reason for the leucorrheal discharge. Instead I found the red point of a small mucous polypus, about the size of a large pea, showing itself at the os. I had no difficulty in grasping the pedicle of this small polypus with slender forceps and snipping it off with curved scissors. I supposed this polypus was the irritant that produced the leucorrhea, and, as I expected, its removal almost entirely arrested the discharge.

For the pruritus and burning, I directed the parts to be freely bathed with sulphurous acid in full strength. The result was a prompt and entire relief. Subsequently there was a partial return for several times of the rash and pruritus, but always completely and promptly relieved as at first by the free application of the sulphurous acid.

My attention was called to the efficacy of sulphurous acid in kindred cutaneous troubles, by a paper read a year ago to the American Dermatological Association by Dr. L. D. Bulkley, of New York. He regards the group of cases described in that paper, as not only eczematous, but as having a parasitic origin, which he found to be uniformly corrected by the application of this acid.

Shortly before the present case came into my care, a lady applied to me with eczema of the face and neck, that under the care of one of my most intelligent medical friends, had resisted all reasonable treatment, constitutional and local, for many months. Dr. Bulkley's cases being fresh in my mind, I laid aside all constitutional remedies, and directed the parts to be freely bathed with sulphurous acid, full strength, with the effect to afford perfect, and as Bulkley expresses it, "exquisite relief." The acid was reapplied from time to time as the itching recurred and the cure is now complete, the skin having lost its scaly condition and become as smooth as an infant's.

Some writers direct the application of sulphurous acid variously diluted, as with water or glycerine. My experience, in a few cases only, agrees with that of Dr. Bulkley, that there is no necessity to dilute the acid, even for very delicate surfaces; I therefore direct the acid to be kept closely stopped in bulk, and the patient to have an ounce ground-glass-stopper vial, which is kept supplied from the larger bottle for use; due care being observed to avoid, as far as possible, atmospheric influence upon the acid. I advise the parts affected to be well saturated whenever the itching calls attention to the disease.

Pruritus vulvæ is frequently an obstinate affection, but I have hitherto found cases which were evidently eczematous; and my experience in the foregoing case is given simply as affording an additional rational therapeutic remedy, especially when the pruritus is associated with this condition of parts.

Notes and Queries.

History of and Necessity for Medical Legislation in Indiana.—Twelve or fourteen years ago, Dr. Lomax, of Marion, Grant county, Ind., engineered the introduction of a bill in the legislature for the registration of births, marriages and deaths. It failed to pass. A few abortive attempts were made since, to have a law for the protection of physicians in their practice. Knowing the character of these bills, we are not sorry that they failed; for, however much we may admire the code and believe in it, still any one who is found qualified by education, etc., should be permitted to practice as he honestly thinks is right.

Since those attempts nothing was, to our knowledge, done for medical legislation until at the session of the State Medical Society of 1873, when, on the motion of the writer, a committee on State Board of Health was formed. Said committee drafted a bill for the establishment of a State Board of Health, and introduced the same in the legislature at its session in 1874-5. This failed to pass. The committee introduced a similar bill at the next session. It passed in the Senate, and after certain amendments passed the House, but the Senate failed for some reason to concur in the bill so amended. In 1874-5 a bill was introduced into the legislature for the purpose of securing an "anatomy law." This was drafted by Dr. Parvin,* of Indianapolis, similar to the one which had just become a law in Illinois. It failed to pass. These, we believe, are the attempts made for medical legislation in Indiana, unless there were some earlier efforts that we have forgotten.

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*I believe Dr. Stevens is mistaken in this statement; for although using every effort for the passing of a bill legalizing dissections, I did not prepare the one that was acted upon by the legislature.—T. P.

The writer, being chairman of the committee on "State Board of Health," at the time of formation, first called the attention of the profession to the necessities of the subject in an article to the State Society in 1873; since which time the committee has in every way sought to unite the profession upon the subject, so far at least as to have their earnest attention called to it, in consequence of which would come efficient strength and sympathy. By circulars sent throughout the state, by resolutions introduced into the county societies, etc., the profession have had constant reminders, and they have responded cordially to the wishes of the committee.

One cause of the defeat of bills for the establishment of a State Board of Health, has been the counter-efforts of our brethren, whom many are pleased to distinguish by the term "Irregulars." Such opposition was caused, not by any inherent dislike to the object contemplated in the bill, but by the fear that it was intended as the first step toward some law for the regulation of the practice of medicine, detrimental to a large body of practitioners; perhaps by giving said law the power not only to inquire into the cause and proper modes of *prevention* of diseases, etc., but to regulate the *practice*—two things which should always be kept separate, and this last idea is the one upon which the committee has been acting since last year.

The Illinois law is, perhaps, better than nothing—so far, we mean, as a union of the Board of Health and Examiners; and yet we doubt not, after a trial, it will be found wanting. In accordance with the idea of such separate boards, and to show all physicians, of every class and sect, that we were honest in our meaning, and "desired the death of no one," the following action was taken at the Indiana State Medical Society in May last, as the annexed extract will show:*

"Dr. Stevens said: I think, in conformity with the drift of thought suggested in the address of the President, we should, at this meeting, lay some plan for definite action; I will, therefore, read some resolutions which I have prepared, which are as follows:

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* See Transactions of Indiana State Medical Society for 1878.

"*Resolved*, That the committee upon 'State Board of Health,' as now constituted by this society, shall be called the 'State Health Commission,' with power to associate with them a competent Civil Engineer, etc.; and that the State Geologist shall be an *ex officio* member of said commission. That the duties of such commission shall be to make investigations as to the causes and means of preventing disease in the State; and that they may, at any time they see fit, petition the Legislature to confer upon them *police powers*, so that they can enforce such measures as they may deem necessary to the objects above mentioned.

"*Resolved*, That in cases of vacancies occurring in such Board of Commissioners, they shall be filled by the State Society.

"*Resolved*, That a committee of three be appointed by the President to draft a bill for the regulation of the practice of medicine in Indiana, and also to define the duties and privileges of pharmaceutists and druggists within the State; and such bill shall be upon the basis of equal recognition of all schools and sects in medicine,—so far as the examination of candidates for practice and their privileges are concerned, they are to have separate boards.

"*Resolved*, That the President appoint three physicians from each county in the State, to use their influence with the Legislature in having any medical bill passed that has received the sanction of, or been recommended by, the State Society."

A bill has already been drafted upon the subject of "Regulation of the Practice of Medicine," similar in kind to that adopted by Illinois, which has received the sanction of many respectable members of the so-called "regulars" and "irregulars." In accordance with this, an Examining Board is to be formed by each sect or school of physicians; and all candidates for practice will be examined and passed upon, as regards qualification, etc., by such boards, each sect or school to examine its own applicants.

This bill, we trust, will remove the troubles we have had to contend with heretofore, arising, as we have mentioned, from the fears and suspicions of different schools of medicine, and leave the Health Commission to act untrammeled, and enable them to obtain the police powers they so much need.

The members of the "Health Commission," as formed by the State Society, are as follows: Thad. M. Stevens, M. D., chairman; Wilson Hobbs, M. D.; George W. Burton, M. D.; J. W. Hervey, M. D.; Professor E. T. Cox, State Geologist. A civil engineer, etc., will be added.*

By the time the legislature meets, we trust the commission will present ample proof of its labor, but all must work in harmony or much strength will be lost. We trust that our medical brethren of all schools will aid us to push not only the bill to "regulate the practice," but to have proper police powers conferred upon the Health Commission.

If any are disposed to object to the fact that the medical portion of the commission are all "regular," they should remember two things:

First. That this commission can not, in any possible way, interfere with the rights or privileges of any medical man whatever, so far as practice is concerned, there being other boards to regulate any such question.

Second. Something is due to that portion of the profession, who, during the last few years, have not only made the State Board of Health their especial study, but also made it possible to have it favorably considered by the legislature.

We know that the mass of the profession of any school are generous enough to recognize such a claim, if only their attention is called to it.

A registry law should be passed in connection, or at least at the same time, with the "Health Law." It is very doubtful if any benefit will arise from the reports that some city authorities require at the hands of the physicians in case of the death of patients. This is, perhaps, of some local interest, but can not be of general utility, for it furnishes no basis upon which to form general conclusions, in which fact is found the good of such reports. There has been no provision made in the state for the registration of births and marriages. It is better that it is so than to have partial, and therefore inoperative ones, such as those referring to deaths. There should be a general law regulating those three points. What laws we may be able at any time to have enacted should, in our opinion, not be based upon the principle that a "poor one is better than none;" for once have it fastened upon the citizens, the cry will be, "the profession has accepted it, and so let it remain." The profession, as guardians of this whole subject, should be satisfied with a law, or have none at all.

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* Since the above was written, the "Commission" organized as follows:

Wilson Hobbs, M. D., Knightstown, President; Thad. M. Stevens, M. D., Indianapolis, Secretary and Executive Officer; Geo. W. Burton, M. D., Mitchell, Treasurer. Other members—J. W. Hervey, M. D., Indianapolis; Prof. Lemuel Moss, Bloomington; Prof. John L. Campbell, Crawfordsville; Prof. E. T. Cox, State Geologist, *ex officio* member.

THAD. M. STEVENS, M. D., Indianapolis,
Oct. 22, 1878. Chairman of Health Commission.

OUR PROFESSION.—We select these encouraging words from the Address to Students, Lancet, September 14, 1878:—"Dr. Johnson, who had a very high idea of the varied learning and science necessarily connected with the character of an accomplished physician, often affirmed that the physicians of this island 'did more good to mankind without a prospect of reward, than any other profession of men whatever.' Pope has said, 'they are in general the most amiable companions, and the best friends, as well as the most learned men I know.' It is the duty of each and all of us to preserve and transmit unsullied this lofty character, and, in the words of old Guy of Chauliac, to be 'kind to patients, gracious toward colleagues, modest in giving an opinion, chaste, sober, pitiful and merciful, and not greedy of gain.'"

QUALIFICATIONS FOR THE PRACTICE OF MEDICINE.—In the twelfth century, the requirements necessary for the practice of medicine were more rigid than in almost any country to-day, as the following excerpt from the Address to Students, in the Lancet, shows:—"No student in medicine could practice in the kingdom of Naples, until he had been examined by the medical college of Salerno. If his attainments were judged satisfactory he had the title of 'master' (*magister*) conferred upon him, and this title the royal authorities confirmed when he exhibited his diploma. Before being admitted to examination, the candidate had to prove that he was a legitimate child, was twenty-one years of age, and had devoted seven years to the art. He was also publicly examined in the writings of Galen, Avicenna and Hippocrates, and sometimes in those of Aristotle. A still later law decreed that, preparatory to the study of medicine, three years at least should be given to the study of logic, and after that five years were to be devoted to medicine and surgery."

Remedy for Epilepsy.—Dr. John E. West, of St. Clairsville, Ohio, has sent us the following:

Dr. Parvin: I send you a remedy for epilepsy, two hundred years old, copied from "the Royal Pharmacopœa, Galvanical and Chymical; by Moses Charas, the King's Chief Operator in his Royal Garden of Plants. London: printed for John Starkey, at the Miter, within Temple Bar, and Moses Pitt, at the Angel, in St. Paul's Church-Yard; 1678."

"*A Famous Anti-Epileptic Powder.*—Take the secondines of a woman of sanguine complexion, brought to bed of her first child, being a boy, dry'd and cleans'd from the membranes, an ounce; roots of white piony, and seed of the same, of each half an ounce; shavings of a man's scull, put to a violent death, shavings of an unicorn's horn, hoof of an elk, missleto of the oak, roots of wild valerean and swallow wort, of each three drams; pearls and coral prepared, contrayerba stone, white amber and seed of goat's rhue, each two drams; oriental murk and ambergrise, of each one scruple; mingle them and make a powder for use."

Erratum.—In Dr. Kemper's article in the October number, page 219, the prescription should contain two and a half drachms instead of two and a half ounces of water.

Practice for Sale.—A physician in a successful village and country practice for many years, desires to sell to a competent successor. Letters of inquiry may be addressed to the American Practitioner.

THE AMERICAN PRACTITIONER.

DECEMBER, 1878.

Certainly it is excellent discipline for an author to feel that he must say all that he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than anything else.—RUSKIN.

Original Communications.

THE NERVES.*

BY JAMES F. HIBBERD, M. D.

Something of the authority of prescription would claim to dictate that the official address on this occasion should be a broad and discursive dissertation on the state of medical affairs generally, with allusions, more or less pointed and full, to the mission of the Tri-State Society particularly; but there are reasons cogent and precedents abundant that urge me to, and sustain me in, an abandonment of the rule in the present instance. Accordingly your attention to-day will be called, first, to some special views of my own concerning the nature and primary manifestation of nerve function; and then to some general considerations regarding the practical significance of the information coming to us through the modern investigation of nerve structures by a host of diligent students. It should be further premised that the term nerve, as used in this address, is not limited to its popular signification of a nerve trunk or conducting fiber, but is intended to embrace all the essentials of the nervous system, whether it be tissue creative or conductive of nervous energy.

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* President's Address, delivered to the Tri-State Medical Society of Indiana, Illinois and Kentucky, at Springfield, Ill., November 13, 1878.

About twenty years ago, the science of medicine was greatly enriched and advanced by the results of inquiries into the structure and service of cells. The best illumination on these points came through the light originating in the pathological changes of tissue. Those of us who were in active life at that time have a vivid recollection of the interest with which we received the intelligence of the publication of Virchow's Cellular Pathology, and with what alacrity we embraced the earliest opportunity to procure a copy.

To my mind, the introduction of the better understanding of the role of cells in the animal economy, into the study of biology, was one of the grandest strides of modern times toward a correct knowledge of elemental life, leading us as it did to the very simplest forms or units of animated nature; and enabling us to see and understand largely how these units are aggregated to constitute animals of the most complicated organization, and pressing us to diligent inquiry into the means whereby this aggregate of countless units could be made to work together as a harmonious whole.

With the idea, so long and so firmly held, that man himself was a unit of creation — while all other animals were equally other units of the same creation — his several parts made for and exclusively adapted to each other, it involved a change of thought in the nature of a revolution to receive as true the fresh doctrine of biology, that all vitalized matter was compassed in cells, or the immediate product of cells, and that all animal existence from monera to man was constituted of one or more cells—each cell, whatever its situation or association, retaining in some degree its characteristics of independence. Nevertheless, this revolution of thought has been effected, and to-day the great doctrine of cell-life is the accepted faith of every thorough biologist.

Since some indefinite period in the past, it has been very fully recognized that the nerves were the connecting links that, through mandate or sympathy, presided over and harmonized the divers parts and sundry functions of the human system. But it is only within comparatively few years that biologists have successfully pursued a line of experimental investigation that, persevered in, will ultimately open to us as accurate and satisfactory an insight into the occult structure and mysterious operation of the nerves, as we now have of the nature and function of cells.

Some years ago, an advanced student asked a facetious Cincinnati professor what was the function of the tuber annulare, and had this for an answer:—"I can not tell you now: last quarter it was held to be a center for voluntary motion, and may be held so yet; but in a few days my Quarterly Journal of Physiology will be at hand, and then I shall be able to give you the latest fashionable professional notion in regard to the ganglion." This may seem a bit of persiflage to such as have not kept abreast with the varying opinions concerning the nerves held by the most esteemed physiologists in the last quarter of a century. Even now there are scarcely two physiological authors of eminence who hold to the same view precisely of the functions of the multifarious ganglions of the human system, nor even of the chief ganglions of the encephalon alone. The elaborate experimental investigations of Ferrier on the brains of the inferior animals, and largely on the brains of monkeys, have not been accepted without challenge by many of his co-workers in the same field of labor. But doubts such as these are the seeds of science—the salt and savor that keep it fresh and palatable to those who maintain a great interest in the progress of events, not exactly as producers, but rather as feeders, on the fruits of others' industry.

Notwithstanding the absence of uniform agreement among these explorers, on many and important points, there has been unprecedented progress in unraveling the mysteries of both structure and function of nerves within the last decade. The lack of identical conclusions should not be construed into a willful bias nor a want of acumen, but rather it should be taken to signify the depth and intricacy of the living tissue mines into whose dimly-lighted arcana these toilers after truth are delving.

While we recognize the fact that nerve force has its genesis in the nerve cells, and that the function of the nerve fiber is to conduct nerve force to and from the cells, we must not be insensible to the further fact that there is a service closely related to that of the nerves, and yet pertains to neither the cells nor the fibers. For example: Suppose all nerve connection of a muscle be destroyed without detriment to the integrity of the muscle itself, then, at any time before the molecular death of the muscle, if an appropriate stimulant be applied, the muscle will contract, and this accordingly independent of both gray and white nerves.

All motion in the human system is presided over by the nerves, and we constantly associate with our idea of motion the stimulant of a motor nerve belonging either to the reflex, automatic, or voluntary system of nerves. Let us, in this connection, consider a voluntary muscle. Such a muscle consists of a bundle of fasciculi, and each fasciculus is, in the adult, from $\frac{1}{250}$ to $\frac{1}{450}$ of an inch in diameter, is transversely striated, and may be separated in this direction into sarcous elements $\frac{1}{25000}$ of an inch in thickness, and it may also be separated longitudinally into fibrillæ $\frac{1}{25000}$ of an inch in diameter. For our present ends, the fasciculus is to be regarded as the proximate element of the muscle, because it is continuous from end to end of the muscle, and is not penetrated by either nerve, blood vessel or lymphatic.

Just how much of the muscular fasciculus is in contact with the axis cylinder of the nerve, has not been settled. It is generally maintained that the nerve fibril terminates in plates on a limited portion of the surface of the fasciculus; though Stricker has observed various methods of termination — in loops, anastomoses, and granular bulbs — in sundry of the inferior vertebrata. Foster, in his Text Book of Physiology, recently issued from the London press, sums up the present status of information on this point by setting forth that when a motor nerve arrives at a muscular fasciculus, the neurilemma joins with the sarcolemma as a continuous membrane, and the axis cylinder passes through to the surface of the adjacent sarcous elements, and there terminates in the nerve plates. This makes it obvious that at most the attachment of the nerve fibril is to but a small portion of the fasciculus, and yet a stimulant applied through this nerve causes contraction in the entire length of the fasciculus. How is the nerve influence conducted to that portion of the fasciculus to which the nerve is not applied?

Still further: If an appropriate quantity of urari be administered, it will altogether destroy the irritability of the nerve without affecting the irritability of the muscle; and then, if a single point in a muscle be appropriately stimulated, the whole muscle will contract.

These two illustrations are conclusive that not only the fasciculi individually, but the entire muscle, has some method of conducting a stimulant received at a single point to all its sarcous element, and inducing contraction therein, independent of nerves.

By what means or agency is this accomplished? It is doubtful whether this query has been satisfactorily answered. But there are scattered facts which will, when brought into proper relation, go far toward a rational solution of the problem. Our knowledge of the habits of the lowest forms of life warrant us in ascribing to them a factor in their organization that is the equivalent of the nerve system in the higher animals, not failing even in that faculty we denominate intelligence in those beings where the nerves have reached their fullest development.

An amœba is a simple cell, a bit of homogeneous protoplasm, without differentiation of parts, and yet it is a perfect animal. It has locomotion, without legs or feet; it has digestion, without stomach; it selects food without eyes, nose, mouth or tentacles; it secretes without glands; and it propagates its kind without reproductive organs. If it be quiescent but needing nourishment, and a speck of matter be carried against it, and this matter is of a kind unsuited for its food, it remains quiescent and the speck of matter passes away. But if the speck of matter prove to be appropriate food, it agglutinates the speck to itself and immediately folds itself all around the speck, and, secreting a digestive food, dissolves such part of the matter as is adapted to its needs, then unfolds and liberates the unappropriated matter; and when it gets old enough and big enough, it divides itself into two bits of protoplasm of equal qualities, making thereby two perfect amœbæ, and thus multiplies and replenishes the earth (or rather the water) with its kind.

Does not this exhibit the characteristics of more complicated animals, in their essential attributes? Does not the letting pass of inappropriate matter, and the stopping of appropriate, the lapping itself around its food, evince discriminating intelligence? Is some one ready to answer, that when its proper food presents, instinct impels the amœba to seize the nutritive morsel. Perhaps this may be a proper characterization of the act; but what is instinct? If contact of food set the amœba in action merely, why did it not curl away from the food? That it did curl around the food in a way to inclose it—does this not clearly disclose an adaptation of means to an end?—and is there a more lucid definition of intelligence than this?

In some of the lower forms of the hydra, they consist of two bits of protoplasm, two cells, one of which is sensitive and is devoted to the duty of attending to the affairs of the environment—selecting the food, seizing it and passing it to the other cell, which conducts the digestive process and manages internal concerns generally. Foster declares this the first and simplest manifestation of nerve apparatus. This declaration can not be accepted. We have seen that the amœba, a single cell, has done all that the two-celled hydra can do. It is error to call an irritability nerve energy, when it appears in an animal of two cells, and ignore the same irritability when it appears in another animal of one cell; and it is illogical to qualify a something as first and simplest that is done by two cells, when precisely the same thing has already been done by one cell.

We see accordingly that the cell, this bit of homogeneous protoplasm, is the simplest form of animal life; and all the higher forms of animal existence are but aggregations of cells, differentiated in structure and function proportionate to extent and complication of development of the individual animal—man himself, with his immense preponderance of nerve, being no exception, but standing notably at the head of, and far above, all other aggregations of protoplasm.

The primordial animal cell, therefore, has the potentiality of all the animal kingdom; and the essential difference between an amœba and a man is that the former is an isolated cell, without morphological complications, each part equally apt for all duty and always ready for service; while the latter is an indefinite plural brotherhood of cells, differentiated in structure and function to a degree of refinement that is not yet fully compassed by his own completest mental power of penetration.

As we pass from lower to higher forms of animal life, it is found that in a community of cells some of them are transformed in structure, so that they retain but little more than a single element of the primordial progenitor, and are as dissonant in function as in structure. In man, nerve bears slight similitude in either relation with the sensitive irritability of the original, while muscle remains a comparatively close copy of its type-precedent in both structure and contractile irritability. And thus it is that in the muscle of man, as in all higher animals, the sarcous elements are cells retaining largely of the primitive attributes of protoplasm, and in an especial degree the contractile irritability and intercellular conduction of energy; and by this means accomplishing among its proximate elements a service that, between separate muscles and between most other tissues, demands the intrinsic functions of nerves.

Here, then, we have a rational and satisfactory response to the query, how a fasciculus or a whole muscle is excited to contraction by a nerve force applied to a single point. It is by virtue of the fact that the cells which compose the muscle, have, by the law of their evolution, retained so much of the endowment of the primordial animal cell as qualifies it for this necessary duty.

A slight and obvious modification of this doctrine will render it applicable to the elucidation of glandular secretion; for it is not more probable that a nerve fibril is distributed to every gland cell, than it is that the same thing is done to each sarcous element.

Thus far we have been studying the nerves in their earliest manifestation. Let us continue our exercises by examining them in some phases of their highest development.

Gray nerves generate nerve force, and they are cells; white never conduct nerve force, and they are fibrils. The gray matter of the convolutions of the periphery of the brain is the center for psychical manifestations. It is exceedingly complex. There are substantial reasons for regarding a zone across the central part of the periphery, from side to side, as the multiple psychical center for voluntary motion. This embraces over a third of the periphery, and is composed of many ascertained centers—for sight, for hearing, in fact for all the special senses; for the movements of limbs, for particular sets of muscles; and there is a faint glimmering of coming events indicating that presently it may be ascertained that every muscle, possibly every fasciculus, is presided over by one or more cells in the periphery of the brain.

The occipital portion of the periphery is the center for internal operations in their psychical relations. When one has had a good dinner, it is possible that the high sense of enjoyment which follows, reaches the consciousness through the occipital lobe. That part of the periphery anterior to the motor zone is the center for the reasoning powers. It is here that the afferent nerves, through their centers in the middle zone, send their information to be, as it were, examined, assorted, recombined into new ideas and conclusions, and then, through the efferent nerves, made active wherever determined. This frontal lobe, in some measure, exercises the same controlling superintendency over mental affairs that the medulla oblongata does over physical affairs. It is its supremacy that marks the exalted intellectual superiority of man over all other animals. The optic lobes, the pons, and the cerebellum are the compound center for emotion, equilibration, and locomotion; the optic thalami and the corpora striata are the centers for sensation and voluntary motion, being respectively the portals of ingress and egress in this behalf to the cerebral hemisphere. The medulla oblongata is the center for sensori-motor activity; and counting its afferent and its efferent fibers, and its cells, as a whole, it is the great automatic center of life. And, finally, the spinal cord is the center for excito-motor, or simple reflex, activity.

These are the chief ganglions of the cerebro-spinal axis. There are others, even in the encephalon, and many in the cavities and organs of the body; but it is not within the purview of this exercise to have further reference to them.

In man the functions of these several sets of ganglions are so interwoven, that it is quite impossible to draw a line of demarkation that shall distinctly outline their respective territories. But by following the evolution of nerves through inferior animals, we are led in light and confidence to the real significance of the nerve arrangement in man; and this teaching is confirmed by the nerve development in the human embryo, passing, as it does, through various stages that are permanent in one or another of the lower animals.

After describing how a human fetal brain is begun, Hugh Miller makes this comparison:—"First it grows up into a brain closely resembling that of a fish; a few additions more convert it into a brain undistinguishable from that of the reptile; a few additions more impart to it the perfect appearance of the brain of a bird; it then *develops* into a brain exceedingly like that of mammiferous quadrupeds; and, finally, expanding at top, and spreading out its deeply corrugated lobes till they project widely over the base, it assumes its unique character."

And the same author, in speaking of the order of evolution of brain, and the relative size attained by it as more and more intelligent classes of animals were evolved, adds:—"The brain which bears an average proportion to the spinal cord of not more than two to one, came first—it is the brain of the fish; that which bears to the spinal cord an average of two and a half to one, succeeded it—it is the brain of the reptile; then came the brain averaging as three to one—it is the brain of the bird; next in succession came the brain that averages as four to one—it is the brain of the mammal; and, last of all, there appeared a brain that averages as twenty-three to one—reasoning, calculating man had come upon the scene."

Not only is it the amount of brain that distinguishes man from beast, but it is the quantity and quality of the gray matter in the periphery of the brain that measures the difference between the man of the stone age and the man of this age of steel. It is the quantity and quality of this nerve matter that distinguishes the wise man from the fool, the sane man from the demented, the virtuous man from the vicious.

It matters not what may be any one's convictions of the ulterior essence of the mind, all must acknowledge that we know nothing of its existence or nature, except as manifested through the nerves. If one holds that the mind is an independent psychical entity, it is still only by the nerves that it reveals itself; and if the nerves be deranged, defective or wanting, the mind must to our observation be deranged, defective or wanting. Without prejudice, therefore, to any one's creed or faith, we can all stand on common ground, while we ponder the psychical diversities manifested through or by the nerves of individuals, classes and nations:

The difference between Rev. Joseph Cook and Col. Robert G. Ingersoll is a difference of nerves; the difference between Gen. Ulysses S. Grant and Benjamin F. Butler is a difference of nerves; the difference between Prince Bismark, of Prussia, and Sitting Bull, of sorrowful memory, is a difference of nerves; the difference between Thos. A. Edison and Dennis Kearney, between Herbert Spencer and George Francis Train, between Florence Nightingale and Victoria Woodhull, is a difference of nerves; the difference between Shakespeare and Milton, between Alfred Tennyson and Walt. Whitman, is a difference of nerves; the difference between John Calvin and Michael Servetus, between the missionaries who go out to the ends of the earth to convert the heathen, and the heathen who kill and eat the missionaries, is a difference of nerves; the difference between a Brahman and a Mussulman, a Jew and a Christian, a Catholic and a Quaker, is a difference of nerves; the difference between the people who sent Stanley to explore the Mountains of the Moon, and the relentless savages on the banks of the Congo who sought his life so persistently; between Madam Fearless, who steps into a cage of wild beasts and chokes into submission the lion that tears her flesh, and Miss Timid, who screams and faints at the sight of a caterpillar on her dress, is but a difference of nerves.

These differences spring out of the dual base of heredity and cultivation; and both heredity and cultivation pertain to nations and races as well as to individuals.

Heredity is not merely that a child represents the peculiarities of his parents, but that he may exhibit traits that have been accumulating through his ancestors for generations; *albeit*, neither of his parents presented evidence of their existence. Cultivation is not alone the instruction that is intentionally given, but includes as well all the instruction derived from the environment, be this beneficial or detrimental. Heredity exercises an influence over the development of human nerves that can not be completely controlled by any surroundings, though it may be materially modified thereby.

The hemispherical ganglions are a blank at birth. The cerebral periphery of the *nouveau né* has few and imperfect convolutions, and the cells are inactive. Fresh infants do not think, nor reason, nor have memory. All their activities are automatic and reflex, and originate in the sensori-motor and excito-motor centers, and are quite independent of intellection. Human monstrosities have been born without cerebral hemispheres, and yet did cry and nurse, and do other acts as promptly as perfect infants do.

But as the elements of knowledge come to the child through the eyes, the nose, the ears, the palate, the touch, and the internal sensations, the cells assume functional activity, the convolutions grow, the fissures deepen and multiply as the days, the weeks, the months, the years, and the decades roll on. The more perfect the intellect the deeper are these folds, and the more complete the organization of the cells constituting the periphery of the brain. And here we see the real significance of the convolutions of the brain: it is nature's scheme to economize space in the stowage of an important organ.

Through his senses only does the child gather in the elements of knowledge, and intuitively by slow degrees he comes to make use of analysis, comparison and synthesis, in the formation of new and original ideas. But the leading mental occupation of the average child, until he is eight years old, is observation; and accordingly this is the age at which he may properly become a pupil or subject of ordinary school education. Whatever is done before this in schools should be chiefly to exercise and train the child's observation to exactness by the method known as kindergarten, or some modification of it that will engage his observation in pleasant and agreeable ways—such that he will enjoy himself while accumulating the elements of knowledge as thoroughly as if he were at play; and by this means, at the same time, equally encourage his physical frame to healthy development.

Intellectual growth is not by sudden strides, but by regular increments—slowly at first, more rapidly when further advanced, and as a rule reaches certain points at certain ages.

Suppose some attractive object, say a small bird with gay and beautiful plumage, be exhibited to a child ten years old. He will gaze at it intently and with admiration, and while doing so will ask if he can not keep it in a cage, and how it must be fed and cared for. Exhibited to a child five years old, he will be wild with delight, will seize it eagerly and caress it for a time; then pick it to pieces, feather by feather, to see how it is made, regardless of its suffering. Exhibited to a child one year old, he will crow and laugh, reach out his hand and grasp it, and put it into his mouth. Exhibited to a child three months old, he will manifest his joy and his sense of the beautiful by laughing, chuckling, beating the air with his arms, kicking with his legs, keeping up a glad animated movement with his whole body, while his eyes sparkle with delight, but he makes no movement to seize it with his hand. This fairly presents the behavior of the child at these several ages, and as fairly illustrates the development of his nerves at the designated eras.

Is it not the reasonable duty of the medical profession, on all suitable occasions, to excite public thought, and especially the attention of educators of youth, to these facts concerning the development and condition of human nerves, to the end that some of the mischievous errors of primary school education—if not, indeed, all school education—that are so apparent to every thoughtful observer, and so distressing to every well-wisher of his kind, may speedily be modified and presently eradicated.

The government, the laws, the religion, the industry, the literature, the art—in short the civilization of every nation, will be precisely what the average nerve development of her active people make them. While, therefore, it should be the duty of the educator to comprehend and rightly cultivate the juvenile nerves, it should be equally the obligation of the statesman to understand and manage the adult nerves. The recent war on two sides of the Black Sea, was a great bi-national fracas to regulate two discordant sets of national nerves; and they were not well regulated after all, probably because the diplomats of the Berlin Congress did not correctly measure the nerve condition of the great belligerents.

The Indian policy of the United States will never be true or just, until it is based on a proper appreciation of the nerve development of the aborigines. An Indian is a man in stature, in strength, and in endurance; but he is a boy in reason, in morals, and in religion. The Indian warrior is fond of pomp and show, decorates himself with paint and feathers and tinsel, and struts like a boy; and, like a boy, will respond to kindness, to confidence, to fair dealing and honest intercourse, so long as he understands them; but he readily misconstrues an intended benefit into a deliberate wrong, and takes vengeance into his own hands, and then, unlike the boy, he has the physical ability and the savage cunning to execute his cruel will. While he understands something done for his physical benefit and emotional enjoyment, and reciprocates it according to his nature and his means, he still fights shy of the restraints of civilized society, and resolutely refuses other than temporary conformity to the formalities of the Christian religion, and its principles never find lodgment in his conscience. No management of Indians can be successful that does not recognize the status of his nerve development, and proceed on the fact that this status can be altered to our standard of civilization only after several generations of training, and never in the adult individuals on whom it may be begun. Such change must be the joint work of heredity and cultivation.

And so likewise of the two distinct varieties of men who constitute the population of the late slave states of this Union. Statesmen will never harmonize their views of a southern policy, unless by study, or some lucky revelation, they comprehend the nerve development of the two races. Until the state-craft, national and local, recognize or unwittingly act on the differing nature of brains in different races of men, ordaining and maintaining the political and social status of the people by this standard, there can be no such thing as permanent peace and heartfelt unity among the inhabitants of the south.

Woman's right is another question of state, large now and rapidly growing, that must be adjudicated on the basis of a knowledge of the nerve status of the sexes. No abstract reasoning on the fanciful equality or dissonance of the sexes can settle the question. Neither will a retrospective view of the status of woman in the barbarism or the civilization of the past, nor a prophetic forecast of what it may be in the future, nor yet a true estimate of what a woman may do or may not do in other civilized countries of to-day: the problem is absolute for this country at this time, and must be solved by reaching a correct understanding of woman's nerve development, either by scientific investigation or hap-hazard drifting. Suffrage is not a natural right, like fighting for instance, but is a privilege growing out of the aggregation of people into a community—such that some natural rights must be yielded to the common welfare, and some artificial organization established to regulate public affairs, and must be exercised according to these adopted rules; and these, as we have seen, will always be in accord with the average nerve development of the community.

These brief statements may suffice to suggest the direction which a philosophical study of nerves would lead the student, and perhaps also in some measure indicate the value of such study, in the estimation of the writer. The limit to which such investigation might advantageously extend is not now within the range of his mental vision.

Physicians, more than others, should give heed to the force and character of nerves; but as healers of the ailing, their attention is more especially directed to the condition of individuals, though as conservators of public health they must embrace communities as well. But this branch of the subject in hand is too widespread and far reaching to be adequately or profitably discussed in an address, which has already reached the proper limit in time, and probably overstepped the limit of patience in the auditory. It will accordingly be now closed by recalling to your remembrance a story, published a score of years ago in "A Book about Doctors," that is illustrative of nerves in several aspects frequently encountered by doctors in their professional career:

An acute young surgeon in England was summoned to visit a very wealthy single lady, far advanced in years, who had for a year been suffering from an alleged bristle of her tooth-brush that had fastened itself in her throat. She stated that she had consulted the eminent surgeons of London, but they had uniformly assured her, after critical inspection, that she was only the victim of a nervous delusion—that her throat was perfectly healthy—that the disturbance was only in her imagination. "And so they go, the stupid, obstinate, perverse, unfeeling creatures," concluded the poor lady; "saying there is nothing the matter with me, while I am dying, dying, dying." The surgeon caught his cue, and was equal to the occasion; and after examining her throat with much deliberation, announced that she was quite right — Sir Benjamin Brodie and Sir James Clark were mistaken; he could see the head of the bristle low down, almost out of sight, and if she would permit, he would run home, get his instruments, and extract it instantly. Certainly, that was the very thing she was longing for. The surgeon presently returned with a delicate forceps, in the teeth of which he held concealed a bristle from a toothbrush. The lady threw her head back; the surgeon introduced his forceps — a prick, a scream, and it was all over. The surgeon, with a smiling face, was closely inspecting the extracted bristle. The lady was in raptures; she immediately recovered her health and spirits, and went about everywhere sounding the praises of her savior, as she called the surgeon. "So enthusiastic was her gratitude, she offered him her hand in marriage and her noble fortune. The fact that the young surgeon was already married was an insuperable obstacle to this arrangement. But other proofs of gratitude the lady showered on him. She compelled him to accept a carriage and horses, a service of plate, and a new house. Unfortunately the lucky fellow could not keep his own counsel. Like foolish Samson with Delilah, he imparted the secret of his cunning to the wife of his bosom. She confided it to Louise Clarissa, her especial friend, who had been her bridesmaid. Louise Clarissa told it, under vows of inviolate secrecy, to six other particular friends; and the other particular friends— base and unworthy girls!—told it to all the world. Ere long the story came round to the lady herself. Then a storm arose! She was in a transport of fury! It was of no avail for the surgeon to remind her that he had unquestionably raised her from a pitiable condition to health and happiness. That mattered not. He had tricked, fooled, bamboozled her! She would not forgive him; she would pursue him with undying vengeance—she would ruin him."

All of which may be taken as evidence that the nerves of some women and surgeons are sometimes badly balanced; and the moral is—when a young doctor has an imaginary bristle to extract from a wealthy spinster's throat, he should perform the operation before he gets married.

RICHMOND, IND.

THE METRIC SYSTEM.*

BY DAVID PRINCE, M. D.

If one could imagine that he had never known the use of the Arabic numerals, and that he had for a portion of his life been confined to the Roman system of designating numbers by letters and their combinations, he would be able to appreciate the difference between the two kinds of notation. The Roman, who knew only his own method, could have had no conception of the advantages of the simpler characters.

We are in the same case with regard to the use of weights and measures, in designating the amounts and relations of medicines. Accustomed only to grains, scruples, drachms and ounces, we fail to appreciate the more ready comprehension of the relations and multiples by a system of enumeration, in which the changes are by tens. A single term, the gram, is the only one necessary to know, for weights, and its subdivisions and multiples, arranged by tens, require no complicated thought to comprehend them.

It is in complicated prescriptions, including the different terms of apothecaries' weight and measure, that a comparison with the metric system shows its superiority. Take, for instance, this example:

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* Read before the Tri-State Medical Society of Indiana, Illinois and Kentucky, at Springfield, Ill., November 13, 1878.

℞ Potas. bromid., ...	℥ i
Potas. iodid., ...	℈ i
Tinct. cardamom. comp., ...	f ʒ i
Aquæ, ...	f ℥ viii

The mind does not, at a glance, perceive the proportionate relations of the ingredients. Let this be written in the metric style, and the proportions are seen at a glance:

		Grams.	Centigrams.
℞ Potas. brom., ...		32	
Potas. iodid., ...		1	25
Tinct. cardamom. comp.,	(C. C.)	4	
Aquæ, ...	(C. C.)	256	

Or, in 296¼ parts, one and one-fourth are iodide of potassium; four, compound tincture of cardamon; thirty-two, bromide of potassium; and 256 are water. The C. C. (cubic centimeter) is an instruction to the apothecary to measure the fluid by cubic centimeters, instead of weighing it in grams.

Again, suppose it be desirable to prescribe a compound of the relations of 1, 2, 4, 8, 24. Thus:

		Grams.	Proportions.
℞ Tinct. digitalis, ...	f ʒ i	4	1
Tinct. lobeliæ, ...	f ʒ ii	8	2
Syrup. ipecac., ...	f ℥ ss	16	4
Spts. eth. nitrici, ...	f ℥ i	32	8
Syrup. acac., ...	f ℥ iii	96	24

In this example, the proportions do not readily appear in the old enumeration, but in the new they are apparent at a glance. To comprehend the old formula the denominations must be reduced to grains as the uniform unit, while in the new formula no reduction requires to be made. One of the most important aids to the mastery of a subject, is an expressive language, which in its very construction, conveys to the mind the relations of the parts to each other and to the whole. Our system of dollars and cents does for values, what the gram with its multiples and divisions does for weights.

It is plain, from those examples, that our complicated system of designating quantities obscures their relations to each other, and is therefore a hindrance to their ready comprehension. It is not until the denominations have been reduced to grains or minims that their relations become clear.

The adoption of the new system with its single denomination (the gram), or its equivalent measure in water (the cubic centimeter and its decimal divisions and multiples), places the subject in the most favorable light for rational prescribing. For the habitual routinist, one mode is as good as another, once having been committed to memory; but for one who thinks of the powers and relations of his remedies, the advantages of the new system only need to be stated to be appreciated. The unit of measurement being the gram or 15.43 grains, it is sufficiently near the truth for small amounts to call the gram a quarter of a drachm. The grain is equivalent to .0648 of a gram. It is convenient for small amounts to call the fraction .06. The dispensing chemist, who has not provided himself with the metric weights, will divide the grams by 4 for drachms, and the centigrams by 6, and multiply by 100 for grains.

In the following table, the drachm is made equivalent to 4 grams, though it is only 3.887 grams. The Boston Metric Bureau suggests to draw a line between the gram and its centigrams, as is done with dollars and cents, thus:

			Grams.	
One grain	gr. i	is equal to . .		06
One scruple	℈ i	is equal to . .	1	25
One drachm	ʒ i	is equal to . .	4	
One ounce	℥ i	is equal to . .	32	

The cubic centimeter of water, at 39.1° F., weighs a gram. When, therefore, it is desired that an ingredient in a medical prescription should be measured, the prescriber has only to write (C. C.) before the number, thus:

		Grams.	
One min. or grain	is equal to (C. C.)		06
One fluid drachm	is equal to (C. C.)	4	
One fluid ounce	is equal to (C. C.)	32	

Any physician who writes prescriptions, and wishes to adopt the metric system, has only to furnish his apothecary with a table of approximate equivalents. The simplicity of the scheme makes it easy to begin the use of the system without having the metric weights and measures. The dispensing chemist, with a table before him, can readily translate from the metric denominations into the apothecary's weights and measures. No apothecary will send a prescription to a competitor if he can translate it. In a short time he will, for convenience, supply himself with the metric weights and measures.

Per cent.—The arrangement of the Arabic numerals, multiplying by tens, makes the conception 1 in 10, 1 in 100, and 1 in 1000, easy and clear. The statement of interest, as so much per cent., is easy of exact appreciation. Let one who has been always familiar with our decimal currency undertake to calculate seven per cent. in pounds, shillings and pence, and the superiority of decimal calculations will at once be apparent. So in the conception of the relations of medicines, the same facility attaches to the decimal arrangement. The conception of one-third per cent. solution of salicylic acid in water (one to three hundred) is clear; and whether the amount is increased or diminished, the conception of the proportion remains the same.

The same proportion is expressed by saying $3\frac{4}{15}$ grains to the ounce; but when we change the quantity to other denominations, as drachms on the one hand or pints on the other, the conception becomes confused. There being only one denomination in the metric system, multiples and divisions maintain their relations alike to all the factors of a compound.

It is in this increased clearness of conception of the relations of compounds, and the consequent increased facility of thought in the prescription of remedies, which have not by habit become so familiar as to require no thought, that the new system has its great excellence. The greater the amount of thought required in one's occupation, the greater is the need of simplicity in the instruments of thought. The laying down of a clumsy instrument with which one is familiar, and the taking up of a new one which is handy and facile, is always attended with some hesitation; but as soon as familiarity with the new instrument has been attained, the new is secure in its position. The steel pen was slow in supplanting the quill, but the change has become nearly complete. The quill had on its side poetry, the veneration of age, familiarity, everything but intrinsic excellence. So the English-speaking people cling to the old complications of weights and measures with a feeling akin to patriotism, and the nearer we come to the local origin of the language, the closer the people cling to its peculiarities.

The language of quantity is not an exception. The alienating influence of the war of independence made possible the adoption of a decimal system in the language of values, and the remoteness of Canada has enabled its people to make the same change. We are now engaged in an effort to make the same change, in relation to weights and measures, as applicable to the prescribing and dispensing of medicine. Unlike castles in the air, the advantages of the change will be best appreciated by those who become most familiar.

JACKSONVILLE, ILL.

DIPHTHERIA.

BY JAMES I. ROOKER, M. D.

In this brief article it is not my intention to enter into a minute discussion of the etiology or pathology of diphtheria, but merely to note my recent observations in the treatment of the disease, as prevalent here during the past three months in an epidemic form.

Dr. Fravel read a paper on this disease at the last meeting of the Indiana State Medical Society, in which he gave the history of the malady as it prevailed in Michigan City and Laporte county, during the autumn of 1877. By tracing back this epidemic, it appears to have had its origin in the northern part of the state, and is probably the same as was described by Dr. F., and which has been slowly traveling southward.

In consultation with Dr. Tucker, of Cicero, a small village six miles north of here, on the 12th of July, 1878, I saw the first case of the disease in this vicinity. The patient, a son of Mr. C., was about three or four years of age, and died of suffocation shortly after my arrival at his bedside.

Two months after, I saw the first cases of the malady in my practice at Noblesville. These patients were three boys who had been fishing the day previous, and were attacked at the same time. The characteristic membrane was to be seen in the fauces in each case. The treatment ordered in these cases was quinia and tincture of chloride of iron, to be given every two hours in doses of three grains of the former to five drops of the latter; and carbolic acid, one part to twenty of water, to be applied hourly to the fauces with the spray producer. These cases recovered rapidly.

The next four cases were in the family of Mr. Dow Granger, a farmer residing two miles north of Noblesville. The patients were not attacked at the same time, but successively—the disease remaining in the family probably for seven weeks. The youngest patient was six years of age, the oldest eighteen. This family was related to the one I was called to see with Dr. T., and had there, no doubt, contracted the disease, which was of a very malignant character. Mr. G. was furnished with a Richardson's atomizer, and ordered to apply hourly, day and night, a strong solution of carbolic acid, and to give quinia and iron—the same as in the other cases. Other auxiliary treatment was used when indicated. These cases made slow but perfect recovery, except one daughter, aged fifteen, who was left with partial loss of voice.

The disease had at this time assumed an epidemic form. The number and malignancy of the cases were no doubt exaggerated, as is generally the case when dangerous epidemics occur; but that Noblesville has been severely scourged by this dreadful malady, every intelligent physician, as well as many broken family circles, will bear me witness.

At the same time the disease was prevailing to an alarming extent at Cicero, and with probably more malignancy than it ever appeared here. Drs. Tucker and Warford, both excellent physicians, lost some fifteen or sixteen cases in a comparatively short time, there frequently being two awaiting interment in the same family.

The next cases I was called upon to treat were in the family of Adam Plessinger, a miller, residing with his family near a large pond of stagnant water. In the first week there were three cases—the first being a daughter who had nursed a fatal case in a neighboring family, and from whom she contracted the disease. The family previously was prostrated with malarial fever. All the cases were seen in the beginning of their sickness save one, which died. This family was also supplied with a spray producer, as in the case of Granger, and quinia and muriated tincture of iron given in relative proportions, as in the other instances. All recovered in about two weeks, but the one mentioned, who died of the nasal form on the sixth day of his illness.

From this time until the disease had subsided, I treated in all about forty cases of well-marked diphtheria, losing but two—the one mentioned and another in the family of Mr. Miles, of the Noblesville Ledger. I am of the opinion that other physicians of the place have had probably as many, if not more cases than I, but with what success I am unable to say.

Remarks.—The epidemic, unless communicated by contagion, travels very slowly. I believe it is a conceded fact among our best pathologists of the present day, that the diphtheritic deposit is of a parasitic or fungoid character. While I do not fully believe in the teaching of Bretonneau—that the disease is for the most part local, and always remains so, affecting the system if at all only by absorption—still I am inclined, from my previous observation of the disease and my experience in this epidemic, to believe that the disease can be often cut short by a strong solution of carbolic acid, used locally with the spray producer; but that to attempt the use of gargles, especially in children, is worse than useless; that if the atomizer is thus used, it certainly prevents the formation of the pseudo membrane. I am also of the opinion that in old and well formed cases, it may prove successful. I remember to have had in the family of Mr. L. a very severe case. The patient had been suffering for six or seven days prior to my seeing her. When I was called the disease had assumed the laryngeal form; there was difficult breathing and almost complete loss of voice. In this case Richardson's atomizer was used, in connection with the glass mouth-piece. In a short time after I commenced these applications of a solution of carbolic acid, the case slowly recovered.

Carbolic acid has been used in the treatment of this disease by others before me. Dr. Eastman, of Indianapolis, read an interesting paper on this disease before the Hendricks County (Indiana) Medical Society, which was published in the Indiana Medical Journal, I think, in 1872. While I do not claim priority in the use of carbolic acid in the treatment of this malady, I do claim that to my knowledge no one has used it with the atomizer, and with the persistency with which I used it in my practice. In about twenty families where there were cases of the disease, I had the unaffected members of the family use the atomizer, and in but one instance did the prophylactic treatment fail of success.

Probably other epidemics of this same disease may prove this mode of treatment to be worthless; and I can not, perhaps, better close this article than by an extract from the distinguished Niemeyer: "The recommendations of the various internal and external remedies that are said to have proved efficacious against diphtheria, have usually originated in the last stages of the epidemic, at which time the cases are usually mild and recover more frequently."

NOBLESVILLE, IND.

CASES OF PUERPERAL FEVER.*

BY W. W. CLEAVER, M. D.

At the request of the society I have prepared this paper, giving my experience with puerperal fever.

On November 3, 1874, I was called to the country to attend Mrs. W. in her second labor. She was twenty years old, a stout, healthy-looking woman, but had not been very well during gestation. A healthy child was born after a tedious labor. Next morning her husband informed me that his wife was not doing well, suffering with severe after-pains, and pain in back and hips. I ordered Dover's powder with camphor every four hours, but it failed to relieve her, and her family physician, Dr. Blandon, was called, for I had attended the case for him, as he was suffering from erysipelas of the hand. He applied fomentations of turpentine and laudanum frequently during the night. The next morning I found the patient's pulse 120, respiration hurried, constant pain in the back and hips and abdomen, uterus enlarged, abdomen swollen and very tender on pressure, lochia suppressed, and slight lacteal secretion—in fact all the symptoms of puerperal fever. She was treated with calomel and opium internally, and turpentine externally, and made a very slow recovery.

In December following I had a violent case of peritonitis in a lady fifty years of age, who died on the fourteenth day. I could trace the disease to no local cause.

In January, 1875, typhoid fever, pneumonia, hooping cough, measles and erysipelas prevailed to an alarming extent, and just at this time I was called to see Mrs. S., a neighbor to the patient who had died of peritonitis. Mrs. S. had been confined several days before, and had been attended by a midwife after the baby was born. The symptoms were about the same as in the first case, the lochia being suppressed and no lacteal secretion, pulse rapid, and considerable fever—having broken my thermometer I could not tell how much. This patient had well developed erysipelas on the foot and calf of the leg. She was treated with opium, tinct. ferri muriat. and quinia internally, and a solution of tinct. of iron and quinia locally on the erysipelatous leg. She recovered entirely within three weeks.

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* Read before the Marion County (Ky.) Medical Society.

On February 4th, I attended Mrs. D. in her third labor. It was a face case; so I turned and delivered a dead child, after having administered chloroform. Twenty-four hours after delivery the patient had a chill, followed by severe pain over bowels, with great tenderness, womb greatly enlarged, anxious expression, with the common symptoms of puerperal peritonitis. She got no relief that night nor the next day and night, although she was given morphia in half grain doses every hour, and laudanum per rectum. This treatment was continued, and brandy and carbonate of ammonia given freely, but she died on the fourth day, never seeming to have more than a few minutes' sleep at a time. I went directly from this patient's house to attend Mrs. G. in labor in the country. A healthy child was born, and she and the babe did well.

About the same time Mrs. M. gave birth to a dead fetus, and I was summoned from the bedside of my puerperal fever patient to remove a retained placenta. I was told by the nurse that the after-birth had not been expelled, and I could not find it among the clots which had come away. I oiled my hand and introduced it into the womb, and found no placenta, but afterward discovered it among some old clothes which had been removed. Notwithstanding the above circumstances, the woman made a rapid and perfect recovery.

February 17th, I saw a colored woman, who was moribund from puerperal fever. This patient lived six miles in the country in an opposite direction from the patients I had treated in November and January.

February 19th, I attended Mrs. C., in her fourth labor. She was delivered of a healthy child a few minutes after my arrival at her house. She did well until the next day, when, after eating a quantity of snow, she was seized with pain in the stomach and bowels, to relieve which she placed snow over the chest and stomach. The result was a pneumonia, and all the symptoms of puerperal peritonitis. Treatment failed to relieve her of any of the symptoms; even large doses of opium procured only a few minutes' sleep at intervals, and she died on the afternoon of the fourth day. Two weeks after this patient's death, her husband died of erysipelas complicated with typhoid pneumonia.

February 25th, I attended Mrs. H. in her second confinement. After an easy labor of seven hours, a strong child was born. Twenty-four hours after delivery the patient was taken with a severe chill, was very nervous, pain in the back and great tenderness on pressure over the abdomen. I gave her one grain of morphia, which caused some sleep. The uterus could be felt through the abdomen, much enlarged, the abdomen became more swollen and tender. She was given frequent doses of morphia or laudanum to quiet the pain, and turpentine stupes were applied over the bowels, and the vagina washed out with a solution of bromo-chloralum. Tincture of iron and quinia were also given, and appropriate nourishment. As the case seemed hopeless, I tried the application of towels wrung out of cold water to the abdomen, which comforted her some. Hiccough supervened, however, and black vomit, and the patient died the evening of the fourth day after her delivery.

The day before the above patient died, I attended Mrs. B. in confinement, who got through very well, considering it was a face case. Two days after at my visit I found Mrs. B. comfortable, but uneasy about a colored woman who had slept in her room for two nights, who had a sore throat. I advised her to send her away, and so soon as I had left she sat up in bed and wrote a note to her husband in regard to the matter. Two hours afterward I was called to see Mrs. B., she having had a chill. I found her in a profuse perspiration, pulse 120, and the symptoms which accompany fever, with slight tenderness over the abdomen. She had been taking two grains of quinia every three or four hours, ever since the commencement of labor. She was given laudanum and quinia, and turpentine stupes were applied, and the vagina washed out with bromo-chloralum.

The patient grew worse, and Dr. Polin, of Springfield, was called in consultation and advised opium and bismuth instead of laudanum, which relieved somewhat the hiccough and nausea. She was also given sulphite of soda and brandy. The next night, feeling that the patient would die unless something were immediately done, I applied a large blister to the inside of each thigh, which caused her to rally somewhat, but the next day she expired at 7 P. M., in spite of all the stimulants and nourishment, the seventh day after her confinement. The reaction from the blisters was too great, and it would have been better had only one been applied: used earlier, it might have averted a fatal termination.

My friend, Dr. Avrit, attended a colored woman in labor on March 10th. Dr. Hodgen also saw the case with him. The patient was taken with puerperal fever ten hours after confinement, and died on the third day. Neither of these doctors had seen a case of puerperal fever up to this time. Dr. Avrit went five miles in the country, while attending the above patient, and delivered a woman who, in every respect, had a good getting-up. Shortly after this a woman came in from the country, and was taken in premature labor. She was attended by Dr. Hodgen, and died from puerperal fever.

My last case of puerperal fever died on March 5th, and from March 18th to May 11th I attended ten women in confinement, all of whom recovered. Those who lived in or near the town had some symptoms of puerperal fever, while those in the country showed no signs of the disease, except one who remained in town up to the date of confinement. During the winter I sent several patients away to be confined.

During a practice of twenty-five years, I have occasionally met with a case of puerperal fever, and nearly all recovered; but this endemic which I have described is the first I have witnessed. I have given a candid statement, and leave to you the questions of contagion and portability of the disease. A majority of those who hold that the disease is contagious and portable, say they have seen many cases in consultation, but never carried the disease to their own patients. The first two cases in my practice were three months apart; the next three were very close together, and soon after I delivered ten more women, without any fever which could be called puerperal.

Since the above report was read to the Society, I have been called in consultation to see a case of puerperal fever with Dr. Blanford. It was a typical case but recovered, the treatment being about the same as in my previous cases. Two or three months after seeing this case, I attended a woman in labor who was confined in the house where her son was suffering from phlegmonous erysipelas, whom she had been nursing. She had a quick, natural labor, and, to my surprise, did well.

There seems to be no doubt that puerperal fever is more likely to prevail when erysipelas, typhoid fever and measles are prevailing; but whether from contagion, or septic poison from the physician, I do not know. I do know that where any disease is prevailing in a community, and a person receives an injury that puts him to bed, he is apt to contract that disease, whether it be malarial fever, typhoid fever, or even pneumonia. Were I to meet with a solitary case of erysipelas, or one of puerperal fever, and no others had occurred in the vicinity, I would not cease my obstetric practice; but had others occurred near, or were I to meet more than one case of puerperal fever, my visits to puerperal women should at once cease.

After my experience with these cases, I am still in doubt on the subject of contagion, and unable to say whether my patients caught the disease from me, whether from septic poisons connected with themselves, or from endemic causes.

LEBANON, KY.

A CASE OF PROTRACTED GESTATION.

BY JOHN M. KITCHEN, M. D.

Mrs. —— was married in 1870, at the age of twenty years; before marriage was of delicate general health, irregular as to menstruation, and for some months had received special local treatment, but without much benefit. Not long after marriage she was a patient of Dr. Washington L. Atlee, of Philadelphia, who removed a uterine polypus. Intercourse has always been painful, distasteful, and rarely indulged in.

In 1876 and the early part of 1877, was under the care of a distinguished physician in New Orleans for uterine displacement, sensitiveness of the vagina, and retention of the urine. Menstruated about four times within a year.

In August, 1877, returned to Philadelphia to consult Dr. Atlee, and by his advice was placed under the care of another physician for special local treatment. Menstruated last time in the latter part of November, 1877, and had sexual relations with her husband between December 15th and 25th, 1877—not for some months before and never since. She was pronounced pregnant by her physician in April, 1878, and felt motion *for the first time* in the early part of May. Expected her confinement about October 1, 1878; was first seen by me on September 23d. Becoming tired of waiting, I made an examination on the 27th of October; motion was distinctly felt, and the beat of the fetal heart heard.

Labor commenced November 12th at 6 P. M., was exceedingly painful, and terminated on November 13th, at 2 A. M. The head was large and solid, and was delivered with the forceps. After birth the child, a female, had the appearance of one six weeks old. The parents are entirely trustworthy, and willing to be sworn as to the truth of this statement. It will thus be seen that here is a case where gestation was undoubtedly protracted to three hundred and twenty-two days. It may be a point of interest to state that the husband and baby have each red hair.

INDIANAPOLIS.

Reviews.

Transactions of the Indiana State Medical Society—Twenty-Eighth Annual Session. Held at Indianapolis, May 21 and 22, 1878. 196 pp. Published by the Society.

Comes now this annual, handsomely printed on softly-tinted paper, its general make-up neat and attractive to a degree that entitles its superintendents to the thanks of all its patrons.

May we ask why it did not make its appearance with the hot sun of young July, instead of with the frosts of September? Why should it require four months to publish a book of less than two hundred pages, with all the facilities of the metropolis of the state at command? The issuing of such a book early after the adjournment of the assembly that gave it birth, would charge it with an odor of freshness that would add a zest to the enjoyment of the volume that makes the point worth striving for.

Next year's meeting of the society will be held at Indianapolis, the third Tuesday of May, 1879. As the next meeting of the American Medical Association will be held at Atlanta the first Tuesday in May, 1879, the representatives of the State Society to the National Association at last meeting will have to serve in that capacity a second time.

Dr. L. D. Waterman's Presidential Address is the opening paper of the volume, and treats in such a fresh and striking style the subject of State Preventive Medicine, that the society ordered six hundred extra copies published for the enlightenment of legislators, county superintendents of schools, and educational institutions of the state. Dr. W. not only presents his subject in its professional and general sanitary aspects, but also works out the dollar value of labor bestowed on State Preventive Medicine, which should commend it to the political economist as well as to the humanitarian. Let all classes read the address.

Dr. Wilson Hobbs, Knightstown, presents a second paper entitled the Medical Witness, the first paper having been presented to the society last year. This paper grows out of the imprisonment of Drs. Dills and Buchman, of Fort Wayne, for refusing to testify as experts until their fees were paid. Their cases were appealed to the Supreme Court of Indiana, and on February 22, 1878, the court rendered a decision reversing the judgment of the court below, and establishing it as the law of the State of Indiana that medical experts can not be compelled to testify until their fees as expert witnesses are made satisfactory to them. Dr. Hobbs gives this decision *in extenso*, entering minutely into the particulars of the case from its inception, and then, *con amore*, has hunted up all the law literature, domestic and foreign, relating to the subject, and rehearsed it. The amount of unnecessary details presented makes the dissertation prolix, but something must be conceded to an enthusiast who does the essentials of his work well, even if he do have more than is called for. This decision of the Indiana Supreme Court is the beginning of the settlement of this question in every State of the Union.

Dr. J. F. Hibberd, of Richmond, read a paper on the Treatment of Infantile Convulsions, pleading earnestly for an abandonment of all perturbating treatment during the ordinary convulsive paroxysm. Let us hope he has sown seed upon good ground that will bring forth fruit for the betterment of spastic children, and the consolation of their unnecessarily alarmed parents.

Dr. L. Humphreys, of South Bend, recites five cases of Conservative Surgery, that contain an admirable lesson for the neophyte in practice, and may be read with profit by general surgeons who have grown gray in the service.

Dr. Thad. M. Stevens, of Indianapolis, as chairman of the committee on State Board of Health, makes report of his doings for the year. Last winter he sent to doctors in each of the counties of the state twenty-four questions touching various points in the geology, topography, and sanitary condition of their surroundings. To these questions he received twenty-one answers — rather a meager number for the doctors of ninety-two counties; and his report is made up chiefly of a summary of these answers, and it contains much positive and comparative information that may be useful, if we receive it with the understanding that the average doctor, when replying to a large number of these general questions, is liable to be inexact.

Dr. F. Fravel, of Westville, furnishes a well written account of an Epidemic of Diphtheria, occurring in the autumn of 1877 and the succeeding winter, in a section of the state twenty miles wide and seventy-five miles long, south from Lake Michigan and embracing Laporte county, in which the narrator lived. In his town about one-third of the inhabitants had developed diphtheria, and a majority of the remainder had more or less sore throat. A little over six per cent. of those attacked died; but all deaths were of patients under eleven years old. Dr. F.'s experience induces him to attach some prophylactic qualities to chlorate of potash. His treatment was one-eighth of a grain of permanganate of potash in a teaspoonful of water every two hours, and an intervening dose of one-fourth of a drop of fluid extract of belladonna in a teaspoonful of water every two hours, with a composite gargle of chlorate of potash, apparently prescribed for patients of all ages. There is some indefiniteness in the statement of treatment, but good results are claimed for it, and can be cheerfully allowed while the mortality was only about six per cent.

Dr. John S. Dare, of Bloomingdale, has a spirited portraiture of Nasal Catarrh. In bold and extravagant language, delightfully clear and understandable, he points out the beginning and progress of the disease, but stops short of telling us where it ends, and, what is more to be regretted, does not say a word about treatment. Surely a practitioner who can so graphically describe, must have some valuable experience in the management of the filthy disorder. Shall we not have

Dr. Dare's therapeutics of nasal catarrh at the next meeting of the State Society, for the benefit of the thousands of patients of its members?

Dr. Thomas J. Dills, of Fort Wayne, reports a case of acute Basedow's disease, under successful treatment by digitalis and quinia.

Dr. W. W. Blair, of Princeton, gives a brief account of an epidemic of small-pox occurring in his town, glorifies vaccination, and ignores drugs largely.

Dr. Joseph Eastman, of Indianapolis, reports a case of Upward Dislocation of the Sternal End of the Clavicle, which, after several other dressings had been tried in vain to keep the bone from being displaced by a full inspiration, was cured by encasing the thorax, arms and injured joint, in a plaster-of-paris jacket.

Dr. George W. Mears, of Indianapolis, with warmth and pertinence defends his views of the clear distinction in the etiology and nature of unavoidable and accidental hemorrhage in placenta previa. His paper is entitled "On the Etiology and Treatment of Unavoidable Hemorrhage;" and he claims not only originality but a most gratifying success, for both mother and child, with the tampon treatment of unavoidable hemorrhage as a sole reliance in the cases to which it is applicable. Dr. M. asserts that there has been a persistent determination to misunderstand or misrepresent his views; but his plain and emphatic statement of his position in this paper seems to leave but little room for future errors in this behalf.

Dr. George Sutton, of Aurora, writes on Placenta Previa. Dr. Sutton never presents an indifferent paper, and this one detracts nothing from his established reputation. He points out succinctly the danger from placenta previa, and enforces the fact that when met with it is generally under such circumstances that the accoucheur must make up his mind instantly what to do, or lose his patient. In a majority of cases there is time to send for neither professional assistance nor for other remedial agents than are at hand. The study of the measures for relief must have been made in advance, and the application of general knowledge to the individual case must be decided without hesitation. Perhaps all authorities agree that if the practitioner find the os sufficiently dilated or dilatable, hemorrhage continuing and pains inefficient, the one thing to do is to turn and deliver. But the accoucheur does not always find the os dilated nor dilatable, and Dr. Sutton details the several methods of arresting the hemorrhage, under these conditions, which have been recommended from time to time, signifying his preference for a forcible dilatation of the os with the fingers, while at the same time he uses a conical tampon of muslin, passed from the palm of the hand into the bleeding vessels. This is apparently impracticable; for, if the tampon press against the walls of the uterus around the os, how can the os be reached by the fingers for forcible dilatation?—and if the tampon pass through the os, it presses against the placenta or membranes only, and does not touch the bleeding uterine vessels. And, moreover, the pelvis is a small workshop wherein to carry on by the hand the mechanical dilatation of the os, and at the same time manipulate a muslin tampon. Dr. S. also advocates the early incision of an os, rigid and unyielding from fibrous or cartilaginous thickening.

Thirteen cases are related by Dr. Sutton, five of which were, more or less, under his own observation, and the remainder reported to him by his professional friends. His first case was fatal, notwithstanding a tampon had been applied; and on its result he bases his want of faith in the adequacy of the tampon as so earnestly advocated by Dr. Mears. But surely the case, as reported, should not be allowed this significance. Dr. Sutton did not himself apply the tampon, but says he was well satisfied that it had been most effectually applied. What satisfied him? The declaration of his *confrère* who applied it? This is not sufficient, if he has reference to Dr. Mears's method. Dr. Mears gives practical specific details for the application of the tampon he relies on, and its virtue can not be gainsaid by the failure of a tampon of another kind, nor one applied in a different manner.

These criticisms are not made to disparage Dr. Sutton's dissertation, but to show that even his most excellent presentation of the subject has defective salient points whereof objectors may make a note.

If one looks over the literature of placenta previa and ponders its *rationale*, he is led to elevate three methods of management to the plane of prime importance:—First, if the case be under observation before parturition begins, induce premature labor by the use of Barnes's or other suitable dilator, as advocated by Dr. Parvin; second, if called to a case in labor, and happily with a Barnes's dilator at hand, apply it in the dual role of a dilator and tampon, until the progress of labor expels the instrument or supersedes its necessity; and, third, where the accoucheur finds his patient in labor with dangerous hemorrhage and a dilator not within reach, he may, with much confidence, rely on the tampon in manner and form presented by Dr. Mears.

A short discussion follows the paper of Dr. Sutton, wherein Dr. Parvin asserts the importance of placenta previa, and that the profession are far from being a unit in its management, but believes that full and frequent consideration steadily leads toward truth; expresses doubt about the necessity of distinguishing between accidental and unavoidable hemorrhage where there is certainty that the placenta is previa; claims that a majority of the profession sanction immediate delivery where it can be done; points out that more than a hundred years ago Leroux employed the tampon, and that Velpeau tells us that the styptic tampon acts as an irritant that arouses contractility that expels the fetus and tampon together; concludes that the tampon can not be relied on exclusively, if for no other reason because one out of eight or nine cases is a transverse presentation, where turning must be resorted to whether the tampon be used or not; reiterates his faith in the propriety of inducing premature labor with Barnes's or Molesworth's dilators; declares that the accomplished obstetrician will not confine his trust to any one method of treating all cases of placenta previa, but with the experience of the fathers and the suggestions of contemporaries before him, will apply such measures as the case in hand demands; and disclaims all but the kindest feelings and proper respect for those who differ from him in this and other professional affairs.

Dr. Harding commended the use of the speculum in the application of the tampon, and it was to Dr. Mears that he was indebted for the suggestion.

Dr. Mears did not believe that concealed hemorrhage could take place in using the tampon while the membranes were intact, at least it must be extremely rare; and he thought the proper application of the tampon would save ninety per cent. of the children in placenta previa.

Dr. Cook had had three cases of placenta previa in a little over six hundred labors; all three mothers survived, all three children perished. He could not understand how anything could be brought in contact with the bleeding vessels where a separation has taken place between the placental and uterine surfaces.

This ends the record of professional papers. J. F. H.

Nervous Diseases—Their Description and Treatment. By ALLAN MCLANE HAMILTON, M. D.

"A genuine book is one written by a man (*on autre*), because he knows something worth telling that has not been told. Of twenty books, or twenty professional lectures, possibly one may meet this definition. In all the others, the writer or speaker does not write or speak because he knows, but knows solely in order that he may write or speak. The *vis a tergo* is to the *vis a fronte* in the ratio of one to twenty. Teachers, who are also authors, are particularly given to be dragged into book-making by their position, instead of being pushed into it by the stores they have heaped up and must get rid of."

The above extract, from the Edinburgh Medical Journal, July, 1857, would be well placed at the head of the review department of any medical journal, in view of the numerous publications which are offered to the profession by ambitious authors and enterprising publishers. We believe the book at the head of this article is one, in which the *vis a tergo* is disproportionately small compared with the *vis a fronte*. It has been written with purpose, and not with fullness of "stores heaped up."

"To produce a concise, practical book," is stated to be the object of the author; but between the lines there are occasional illy-concealed personal antagonisms, suggestions of personal fitness and immodest claims, which reveal other purposes than those of general professional elevation.

The scheme of examination of patients is imperfect, as is also that of the post mortem and microscopical examination. Offering such schemes in a "concise and practical book," is probably unfortunate.

In the section on "Instruments," a plate of Seguin's surface thermometer and directions for use are given; but we do not find another mention of the instrument throughout the book, which has been carefully if not completely searched. Some instances of its diagnostic value would have been acceptable, if the instrument were mentioned at all.

The portion of the book on Diagnosis of Brain Lesions and their localizations, appears to be modeled, and in some respects copied, from Bastian. There is close similarity between the two sentences following:

"*Lesions of upper half of one lateral region* (*of pons*).—Injuries to this part of the brain produce a hemiplegia of the same kind as that last described (lower half of one lateral region), with the sole exception that the well-marked paralysis of the face exists on the side opposite to the brain lesion." (Bastian.)

"A lesion of the upper half of the lateral region of the pons will be expressed by pretty much all the symptoms which follow the last mentioned lesion, except that the facial paralysis will be on the side opposite the lesion." (Hamilton.)

More detail as to the distribution of the cerebral arteries would be a practical addition to the study of localizations. Little mention is made of the symptoms localizing affections of the different cerebral sinuses.

The failure in precise descriptions of disease may be seen in the section on "chronic softening" of the brain, where there is a rush into the very midst of an unequivocal case, without indications of the relative significance of symptoms or of their proper relations in point of time.

Is the foot-note on page 370, where the statement is made, "I have been able to stop an hysterical paroxysm by firm pressure upon the ovary"—"other observers have called attention to this phenomenon, among them Charcot," intended to imply that this measure of the therapeutics of hysteria was copied from him by Charcot?

That professional unsteadiness, which is evinced by anxious claims for priority in the use of remedies, is illustrated at a number of places—tri-nitro-glycerin is one of these instances. At the same time there are other instances of failure to even mention other remedies already established in the treatment of nervous diseases. Polypharmacy finds a flagrant illustration in the prescription given in full for the treatment of epilepsy.

The symptomatology of exophthalmic goitre is defective in his text. Locomotor ataxia is divided into the two forms of ascending and descending, without any explanation of the author's understanding of the subdivision. "Asemasia" is an invention for superseding "aphasia;" but two pages beyond he says, "aphasia is much more expressive and proper than any other." If so, why invent another term, and thereby add confusion to the subject?

We have thus written of this work, because it is time authors who would fain lead the profession should be held to strict accountability. We do not see that this one has as yet filled the vacancy which is felt to exist in the English language, that of a systematic and reliable treatise on "Diseases of the Nervous System." One more elaborate than this exists, but it has not gained the confidence of the profession. The *vis a fronte* is more conspicuous than the *vis a tergo* in both that one and this. At the same time one must do justice to the labor evinced in this work; but the author has not been "pushed into it by the stores" he has "heaped up, and must get rid of."

W. C.

Harvey and his Discovery. By J. M. Da Costa, M. D., Professor of the Practice of Medicine at the Jefferson Medical College, Philadelphia. Philadelphia: J. B. Lippincott and Co.

William Harvey was born in 1578, just three hundred years ago. Prof. Da Costa, in opening the current session of the college to which he is attached, instead of making the customary address for such occasions, by pouring out to the assembled class and attendant friends of the institution eloquent and instructive precepts, chose wisely to abandon the beaten path and preach example by presenting to his audience an oration on the life, times, character and labor of him who may justly be held to be a father of the existing science of medicine, who by induction, observation and vivisection, laid the foundation for our present knowledge of the structure and functions of the human body: this exemplar was Wm. Harvey.

Harvey not only discovered the circulation of the blood, and was the foremost among the scientific medical men of the day, but was also a noted man among men of note in every walk of life—the cotemporary, companion and peer of Shakespeare, Bacon, Sydenham, and the exceptionally brilliant men of the stirring times that preceded and covered the era of Roundhead and Cavalier in English history. The eighty years of his life were crowded with events—political, professional and personal—of such perturbating character that they might be counted of the nature of social ferments, which not only made the most momentous changes in the world of that day, but whose continued influence is potent still in every corner of civilization. What a field, wide and rich, is here opened to the acute and accomplished gleaner; and who so qualified as Professor Da Costa to select, from the mass of material at his command, the choice bits of succulent mental aliment to attract his audience, to improve their hearts, to nourish their souls, to excite their emulation, and to charm their esthetic tastes?—and all his good qualities seem to have been in exercise on this occasion to bring to the hour's feast the pick and choice of the viands before him. Let all who wish to enjoy, for an hour or two, a fresh and refreshing dish of old material, sit down to the bill of fare presented by Prof. Da Costa in "Harvey and his discovery." J. F. H.

FOREIGN CORRESPONDENCE.

DR. YANDELL'S LETTERS FROM ABROAD—No. VII.

London, July 26, 1878.

My dear Parvin: To write a letter now, which will probably not be published until next winter, is somewhat on a par with speaking in a phonograph, knowing that your words are to remain in its recesses till ground out—any time—in the distant future.

My trip to Edinburgh was quite as delightful as any other part of my visit to this charming country. I missed seeing Mr. Keith, which I need not say I felt keenly, since, after witnessing Mr. Wells do an ovariotomy, I was especially desirous of seeing the great Scotchman handle a knife. But you can't see everything and everybody, you know. I did see Prof. Spence amputate a thigh, Mr. Chiene straighten a couple of rickety legs, and Mr. Annandale was kind enough to ask me what operation I should like to see him do. I chose resection of the elbow, which I can say I never saw done better. He divided a stricture by Maisonneuve's method—for good measure, I suppose—and did it with much grace.

After this I went with Prof. Tate to one of the great machine shops, where he was making trial of his new fog alarm, which is intended to take the place of the present steam-whistle used on vessels. It consists of two iron wheels—say a foot in diameter—flanged at regular intervals on one of their sides with copper, and made by machinery to revolve in opposite directions. When we entered the shop, we could hear nothing but the noise of the machinery. When Prof. Tate set his infernal noise to going, it smothered all other sounds as completely as those other sounds had smothered our voices. It was simply deafening. Such a shrill, loud, prolonged, penetrating, overwhelming noise I never before listened to. It rings in my ears now, as I sit three hundred miles away.

From Edinburgh I dropped down to Abbotsford, and saw where the "Wizard of the North" had weaved the spells which make his memory so dear to the millions who have read the Waverly Novels. Then I went to Mr. B.'s, where I spent Sunday and Monday with his charming family. Sunday morning we walked across the fields to the kirk, seated a couple of miles away. It was a genuine, old Presbyterian church, in which the ancestors of the B.'s had worshiped for many generations. The building was of stone, long and narrow, and severely plain. The pulpit was perched midway one side the church. The pews stretched out in front and on either side. Their backs were high, and their bottoms hard. In front of the pulpit, on the opposite wall, was a rude painting or fresco, representing a tree, at the root of which lay an ax. Over these drawings was the following inscription:

> "Behold the axe lyes at the Tree's Root,
> To hew Doune these that brings not forth good fruit,
> And when they're cut The Lord into his ire
> Will them destroy and cast into the fire."

The pews were so narrow that I should have thought they would have made the young folks who sat in them either short-legged or bow-legged, but on looking at the congregation, after it was dismissed, I found the people of the usual height. The box of the precentor was attached to the front of the pulpit. The business of that precentor was quite what I have observed it to be in others, namely to raise tunes which none other than himself could sing. Then, in order to magnify his office I suppose, he gave us the usual facial contortions, intended to impress upon his listeners the difficulties of his work. The minister was a large man, with strongly-marked features, and wore a wig. I should say that "he is a workman needing not to be ashamed." He was earnest and impressive, and delivered himself in a way which evidently attracted and edified his hearers. I was particularly struck with his style of prayer. He addressed God as if he was on very close personal relations with him, and left him no margin for misapprehension. For instance, he offered a supplication for one of his charge who was sick, about in this wise:—"Lord, be with that member of this congregation whom I did not hear until yesterday was ill, and whom I consequently could not see until last night."

Monday Mr. B. drove me over to see the hounds of the Duke of Buccleuch in their kennel. Thirty years before, the Duke had been kind enough to promise me, through Mr. Liston, a couple from this noted pack. On our way there we overtook Mr. Shore, the head huntsman, and two whippers-in, mounted on their hacks, exercising the young hounds on the road. There were twenty couple, I think. A few minutes later we drew rein at the kennel, and Mr. Shore politely showed us the hounds and the hunters as they stood in their stalls. It was really a beautiful sight—the shapely, high-bred horses, the brave-looking dogs. Of the former I should say there were a dozen, including the hacks used by the huntsmen. The pack, I think, embraces fifty couple. It is kept up by breeding a certain number of whelps annually. These, on being weaned, are named and put out among the tenantry to raise, a guinea each being paid for the trouble. The youngster, if alive, is returned the next season, knowing his name, and that he must hark to it. He then, along with his mates, is put under the standard, and if his height does not exceed twenty-eight inches, nor fall below twenty-four inches, and he be otherwise well shaped, his ears are trimmed and he is passed into the kennel. If, however, he should have grown too fast or too little, he is mercilessly killed. After a time he is taken out daily, first for gentle and then for severe and prolonged exercise, say fifteen to twenty miles at a stretch, and in September he is put on young foxes. The kennel is a plain, red brick building, paved with stone slabs and divided into several apartments, in the center of one of which is a raised platform, containing straw for bedding. The day was a little cool, and most of the old hounds lay in the straw. The kitchen, where the food is prepared, is under the same roof. The *menû* at this season consists of corn-meal mush, thoroughly cooked. On expressing myself to Mr. Shore, as being glad to see one of the products of my own country used in that way, he remarked that the meal was an excellent food for growing hounds, and such as it was wished to fatten; but during the hunting season it was replaced by oatmeal, which gave the hounds better wind. He was quite sure the pack could do much harder and faster work on oatmeal porridge than cornmeal mush, but the latter, he added, was a capital summer food. The same fatality which has attended parturition in other domestic animals, during the past year here, had affected the hounds, a number of mothers having died in the puerperal state. Mr. Shore showed me four puppies that he had removed some days before by Cæsarian section. The dam perished, but the whelps were sprightly and nursing a foster mother.

Some weeks ago, while strolling through the rooms of the Royal Society, during one of its delightful *conversaziones*, where you are sure of meeting most of the savans of this wonderful city, Dr. Bucknill presented me to Dr. Acland, to whom I bore a letter from my venerable master, Prof. Gross. Dr. A. was in London, presiding at the Medical Council. Do you remember poor Brainard? He and Dr. A. are wonderfully alike—much the same figure, the same fine heads and benignant faces. Before we parted Dr. Acland said, "Be sure you run down to Oxford and see me. Come the evening before Commemoration Day. I will give you a bed and breakfast, and try and make you comfortable; and next day, before the exercises begin, we can look through the hospital and museum, and over the old place generally." Unfortunately, when the time came, I was so engaged as to be unable to accept the bed. I took the early train for Oxford, expecting to get the breakfast. The hour for starting was five o'clock, the distance eighty miles; it was necessary to change cars; I went to sleep before reaching the junction, did not hear the call of the guard to change for Oxford, and went whirling on thirty miles out of the way. When I woke and looked at my watch, I saw that the hour had come when I should have been at Dr. Acland's. On representing my dilemma to the conductor, he politely went with me to the ticket office, had my ticket changed, put me on the proper train, which in due time landed me at Oxford. I paid no additional charge for the extra sixty miles. The railroads in your state, Parvin, are not managed in so liberal a way. Some years ago, in going from Louisville to a point above your city, to do a lithotomy, I was carried, for the same reason and about the same distance, beyond the station at which I should have stopped. I was not only obliged to pay for my stupidity, but got in exchange more than my share of incivility from the railroad officials.

When I reached Dr. A.'s house, he had been obliged to go over to the University; but he was thoughtful enough to leave a note for me, which secured me a nice little repast, and directed me where he was to be found. My breakfast over, the Doctor gave me a ticket to the Sheldonian Theater, the galleries of which were already almost exclusively filled by grand looking women in brilliant attire. The fun and frolic which the under-graduate Oxonian had, in previous years, carried to so wild and disagreeable a point, was greatly curtailed by admittance to the building being limited to the holders of tickets, which it is said were dispensed on this occasion with unusual circumspection. For all that, however, the youngsters, during the pauses in the organ recital, invited responses from the assemblage to the cheers for the "ladies in blue," and the "ladies in white," and finally for "all the ladies." Before the arrival of the dignitaries of the University, cheers were given for the Queen, for the Princess of Wales, and for other members of the royal family. "Lord Beaconsfield and the British Empire" were enthusiastically cheered, while Gladstone got three groans. The Proctors got three ditto with a will. Cheers were also given for the "University Eight," the "Head of the River," and the "Examiners." "Prof. Rogers and his dissipated under-graduates," were greeted with tremendous groans. Prof. R. had incurred the displeasure of the students a short time before, when Mr. Gladstone, while delivering an address at Oxford, was interrupted by some of the youngsters; whereupon Prof. R. exclaimed, "It was only a knot of dissipated under-graduates." He subsequently stated that he had not been correctly heard; that he had said "D'Izzypated." This explanation, however, was not accepted by either the "dissipated" or the "D'Izzypated" youth, and the groans were something frightful.

Presently the great doors were thrown open, the national anthem pealed forth, and the chancellor, doctors, the heads of houses, and the visitors, including several American bishops, slowly entered, and passed to the places reserved for them. The proceedings were opened by the chancellor, who read the names of those who were to receive the degree of D. C. L., *honoris causâ;* and submitted them severally to the convocation, asking "*placetne vobis,*" etc. They were, of course, passed by acclamation. The great doors were again thrown open, and the eight distinguished persons named, attired in scarlet gowns, slowly approached and were presented to the chancellor in a Latin speech by Dr. James Bryce, Regius Professor of Civil Law, which, I have no doubt, was both laudatory and finished, but was wholly inaudible to most of the assemblage. The Hon. Edward Pierrepont, our late minister to the Court of St. James, was the only one of those on whom the distinction was conferred in whom we feel any special interest. He was loudly cheered, as indeed were the remaining seven. The heartiest cheers, perhaps, were given to Lord Napier of Magdala, who was greeted besides with a verse beginning—

> "We've got the ships—we've got the *man.*"

I saw the hero of Magdala on several public occasions, when he was invariably welcomed by applause. I should say he was an exceedingly popular man. In appearance he is quite enough like my friend the Hon. Proctor Knott, to be his twin brother. If he had the oratorical gifts of Knott, I believe he could do anything he pleased with the English people.

The prize-winners of the class of '78 then began their—to the audience—somewhat dreary work. Of the several compositions read, not one could be heard by persons thirty feet away. Some were distressingly long. During the reading of one, the under-graduates' patience was exhausted. They began to murmur, then to grow noisy, when finally one, bolder than the rest, yelled from a distant point in the gallery, "Couldn't you go a little faster?"—(broad *a.*) This speech was greeted by loud applause. The reader smiled, and turned over several pages of his manuscript. As he was about to stop this agreeable work, the man in the gallery yelled again, "Oh! don't stop—turn on." Finally, the proceedings closed, and the great audience dispersed. In the afternoon there was the usual Garden Party, and in the evening the Christ Church Ball. I attended neither, but passed the time most pleasantly with Dr. A. visiting the chemical laboratory and hospital of the University, the arrangement and convenience and completeness of which I have seen excelled nowhere. I reached London at midnight.

While in the City, not long since, a light rainfall drove me from my accustomed seat by the driver of a 'bus to the inside. The shower soon passed over; the passengers, one by one, reaching their destination, left the vehicle, until one other very good-looking man and myself alone remained. The omnibus came to a stand-still, caused by one of those blocks which occasionally occur in the great current made by the countless vehicles which roll over the streets of London. My fellow-traveler consulted his watch, and remarked that it was seldom that the loss of ten or fifteen minutes at that hour of the morning made any particular difference to him, but that he had an important engagement that morning with a couple of Americans—"Yankees, you know." And then he added, "Do you know that all the Yankees look alike to me—the men I mean?" "Indeed," I replied; "in what respect? I don't think I have observed it among the few I have met." "Well," he returned, "they're all thinnish, you know—not stout, I mean; and have light hair, usually straight, with sandy or light beard or moustache, and talk through their noses, which are generally prominent and long." "Ah!" I said, "you're quite right, I've no doubt; but I've heard Americans say that there was a distinct difference between the Yankee proper, or New England man, and men from other parts of the United States, particularly from the South." He added that he did not remember having seen any Southern Yankees, his acquaintances having been from Vermont and Massachusetts.

About this time the blockade was raised, and we moved on. Presently I said to my newly-made acquaintance: "Speaking of different races, what countryman would you take me to be?" "An Englishman, I should say, you know," he replied, "who had traveled a good deal, and been quite a time in India, perhaps." "Well," I rejoined, "you might have missed it farther. I was born, though, in one of the Southern States of America, but married when quite young, and have lived most of the time since in the tropics; at least my home has been made decidedly warm—on occasions." Slowly he took in the joke, laughed, and said, "Well, really, that's not bad, you know."

I asked him if he could tell me how I could get to hear Mr. Spurgeon, whose church we happened to be near at the time, without having to wait at the doors so long, as I understood one had to do on Sunday morning. He replied that he was a pew-holder in the Tabernacle, and should be very happy to send me a couple of cards, on presenting which to an usher, I would be shown to a comfortable seat, near to the pulpit, where he would be really glad to see me on the next or any other Sunday of my stay in London. "Do not surrender the cards to the usher," he added, "but retain them, and when you are through with them return them to me." I gave him my address, and the next morning the cards came, accompanied by a very kindly note. The following Sunday our friend Prof. Noble Butler and myself were shown to the pew of my pleasant acquaintance, which, as I had been told, was near to the pulpit, fortunately near enough to enable me to see Mr. Spurgeon and the multitude who had assembled to hear him. It was indeed a multitude, a multitude of well-dressed men and women, with a large sprinkle of young people and children, all in their Sunday attire, quiet, decorous; a congregation of six thousand, filling every seat, and occupying chairs in the aisles. Our seats were in the gallery, but a little raised above the head of the preacher as he stood at his desk. Presently a stout, short man, dressed in a suit of plain black, frock coat, ascended the steps leading to the pulpit. His face was covered with short-cropped whiskers and moustache. His hair, which was brown, was also worn short. His shoulders were broad, and his girth considerable. His arms were not long, nor were his movements graceful. Seating himself, and resting his round and somewhat massive head on one of his hands, he seemingly engaged for a moment in prayer. He then rose, and Mr. Spurgeon stood before his people. He opened the exercises by a prayer which was short, and heard in every part of that vast building. His voice is clear and sonorous, his enunciation singularly distinct, while his intonations are neither monotonous nor conventional. He next took up the hymn-book, which was the signal for a similar act on the part of almost every one present. I never saw such an opening of hymn-books; I never saw so many hymn-books in hand at one time. The movement was contagious. Mr. Butler took one, I opened another. The hymn being read—and wonderfully well read—the precentor led off in a familiar and very beautiful tune, which was caught up by six thousand voices, and sung with a spirit which alone constituted most feeling worship. It was hardly to be expected that so many voices would keep time together. In one or two lines the discord was so plain that when the verse was concluded Mr. Spurgeon said, "It seems there are some persons singing who are determined not to keep time with the rest of us. If such is their purpose, and they will make it known, the rest of us will endeavor to keep time with them." With the next verse his own voice, which is a very full one, rose above all others, and the harmony became almost complete. His remark reminded me of the preacher in the "Georgia Scenes," who administered a similar rebuke to Ned Brace when he attempted to join in the music.

Mr. Spurgeon next turned to the 146th Psalm, and commented upon the subjects as he went along. Thousands of Bibles were opened, his hearers following him as he read. I thought he made this the most interesting part of the exercises. He reads better than one preacher in a thousand. His second prayer was of regulation length, earnest, simple, homely. His text was from the third verse of the 146th Psalm, "Put not your trust in princes," etc. He preached from notes, to which, however, he seldom referred. His delivery was very straightforward, his gestures few and not notable for their grace; and when he had concluded a discourse which held that vast throng with unabated interest for fully fifty minutes, I was forced to ask myself in what does the power of this great man consist? It can not be in his presence, for that is in nowise striking; nor in his voice, which is neither clarion-toned nor tender; nor in his attitudes, nor in his gestures, for the first are not classic, nor are the latter in curved lines. Yet there is no man in all London, with its host of prelates, bishops, and the like, who can attract such audiences, or hold them as he does. Dean Stanley, the bishop of Westminster, who I see is soon to visit our country, and who besides being one of the best, is also one of the most learned men and ripest scholars in the English church, addresses but a handful of people compared to the thousands who crowd the Tabernacle. I must believe that the principal element of Mr. Spurgeon's power is that which David Copperfield declared was the groundwork of his success, namely—EARNESTNESS. Add to this quality, great simplicity of language, unquestioned piety, and the genius of common sense, and, as far as I can see, this is all.

On our way to our lodgings, Mr. Butler and I got wet. The next day, while dining with some medical brethren, I mentioned having been to hear the renowned Baptist, and being caught in rain; whereupon I was told that the latter was what I deserved for having gone to hear the heretic, as my friend of the established church styled Mr. Spurgeon. I replied that I had only been sprinkled, not immersed—a joke which was not detected. Englishmen, I'm afraid, are not quick to catch jokes—I mean mine.

Dr. Acland's address at the twenty-sixth session of the General Medical Council was one of those straightforward, business-like productions so characteristic of these people. It was really but a statement of the question of medical education as affected by the several bills on that subject now before Parliament. The discussions which followed, and in which, among others, Sir James Paget, Sir Dominick Corrigan, Sir William Gull, Mr. John Simon, and others, took an active part, was, it seemed to me, very routine, abounding in red tape, and indescribably dull. The best speaker present was Sir James Paget. He would be regarded as charming in any country. A writer in a recent number of a medical journal, in describing the debates at the Council, styles Sir James as the "persuasive Paget," and Sir William Gull as the "solemn and sententious Gull." Whoever the writer may be, he was an artist.

The question of medical education seems to press upon our fraternity here quite as urgently as upon us at home. The Regius Professor of Medicine at Oxford, Dr. Acland, remarks in his address, that "defective general education, empiricism from lack of scientific training, imperfect education tending to encourage low preparation, struggles for existence among too many institutions," exists in Great Britain. And what, in his opinion, is most needed to correct these evils, is "the application of the best minds to the steady development of a sound literary, scientific and practical examination scheme, which shall admit diversity of learning and teaching without allowing unreasonable stringency, or dangerous leniency in testing results." The question at issue is, who will best arrange this scheme—a government office, or the combined efforts of the profession? The way out of the difficulty lies, it is believed by many good men here, in the hands of the several medical institutions. If these would but agree to construct a national board of examiners in each branch of the kingdom, the principal difficulty would be solved, and, as Dr. Acland remarked, the several questions affecting a higher organization of teaching will gradually be unfolded and discovered. We all desire, he added, freedom of teaching with perfection of testing. We all desire perfection in training medical students, who shall possess sincere aspirations, that shall be fruitful of intellectual, moral and social good.

I spent two delightful days a week ago at Birmingham, enjoying the hospitality of Mr. Middlemore, the translator of "the Renaissance in Italy by Burckhardt," a work which will please you more than anything you've read in many a day. While there, I naturally visited the Queen's Hospital, the field of the late Mr. Langston Parker's long and valuable labors. I found Mr. Sampson Gamgee at work in the surgical amphitheater, and saw him do several operations. He is an earnest, attractive speaker, and a most zealous cultivator of scientific surgery. His recent work on the Treatment of Wounds you have already seen.

When you make your next visit to London, do not fail to visit the Royal Veterinary College, founded now nearly a hundred years ago, by the association of a number of noblemen and gentlemen. The names of the educational staff of this institution are well known to scientific veterinarians everywhere. Professors Simonds, Pritchard, Cobbold and Axe are to be regarded as the equals of the best men engaged in this branch of the medical art. The college is provided with a pharmaceutical laboratory, class-rooms, dissecting-rooms, students' reading-rooms, etc., etc. I saw a number of students engaged in dissections, and heard Prof. Pritchard lecture on anatomy. The infirmary contains accommodation for one hundred horses, besides cattle, sheep and dogs. There are provided hot, cold, douche and vapor-baths, operating-rooms, covered exercising grounds, besides three rooms specially set apart as an infirmary for dogs. In the latter were several canines suspected of having hydrophobia. They were kept there for the purpose of testing the question. They were a sorry as well as a most unhappy-looking lot. The museum of the college abounds in interesting preparations. It is particularly rich in vesical calculi, one of which was recently successfully removed from a horse. The institution is sustained mainly by subscription, the subscribers being entitled to have their stock and other animals treated at the institution at a charge only for their keep.

The London school of medicine for women has finally been placed upon a footing which must compel the respect of all right-thinking men. It has recently purchased the valuable museum belonging to the late Dr. Blundell, which was formerly, you will remember, at Guy's Hospital. The corps of teachers at the school, including both sexes, numbers twenty-five, and embraces such names as Thomas King Chambers, Mr. Critchett, Mr. Gant, Dr. Duprè, Dr. Sturges, Mr. Bond, Mr. James Adams, on our side; Mrs. Garrett Anderson, Mrs. Sophia Jecks Blake, on that of the gentler sex. Prof. Huxley and Mr. Ernest Hart, and Dr. Charlton Bastian and Dr. Burdon-Sanderson, are among its warmest supporters. Poor Anstie was at one time Dean of the institution, and it is said that his great personal influence contributed largely to the success of the institution. A lady of New South Wales has recently bequeathed about forty thousand dollars to the college. The class numbered last session somewhere about fifty. In an historical sketch of medical women, by the Right Hon. James Stansfeld, he says:—"In a few years a full opportunity will have been afforded of comparing the capacity of the two sexes for medical work, and of estimating the relative demand for their services." Until those few years have passed, we had as well wait. As I said, in my inaugural address before the American Medical Association, when female practitioners are needed they will be forthcoming. For the present, here's To the Ladies, God bless them!

But this my last letter must have an end. In the midst of all my work and all my enjoyment, I have kept a steady eye on the interests of the AMERICAN PRACTITIONER. Among other things I have secured a regular correspondent here, who, already distinguished, is destined if he lives to take a first place among the medical men of Great Britain. He will furnish a monthly letter, devoted exclusively to the practical sides of our art. I have also the permission of Mr. Francis Mason, to reprint his Lettsomian Lectures on the Surgery of the Face. recently delivered before the Medical Society of London. These I shall supplement with extracts from his Lectures on Harelip and Cleft Palate. For this purpose, Mr. Mason has given me nearly a hundred woodcuts. Mr. John Chiene will write for us a series of Lectures on Surgery, which can not fail to be read with interest on our side the water. Dr. B. W. Richardson, Mr. Sampson Gamgee, Dr. Crichton Browne, Dr. Lauder Brunton, Dr. Milner Fothergill, and many other distinguished physicians and surgeons, have promised to contribute to our pages. Dr. Richard Brandeis, who wrote for us while a resident of Louisville, will continue to do so, now that he has cast his lot, won his spurs, and hung out his shingle here. Altogether I must believe that no journal in America will offer such attractions for the year 1879 as the AMERICAN PRACTITIONER.

To-morrow I go down to the sea. And I shudder at the thought! I hope, before embarking at Liverpool, to see the dear Samuelsons, of whom I wrote in my first letter, Dr. Braidwood, and Mr. Harrison, who passed me on the ocean.

One word, and I am done: The kindness which met me when I first touched these hospitable shores, has followed me all the day long. It has made my stay here unspeakably pleasant. It has filled me with memories which will make me a happier and, let us hope, a better man. It is a great privilege to have known such men as I have come to know here. It will be a source of unfailing regret that I am not likely to be granted an opportunity in my far distant home of repaying even a tithe of the kindness which has been shown me. I can only hope to do so by being loyal to our common calling.

Ever, my dear Parvin, yours faithfully,

D. W. YANDELL.

Clinic of the Month.

Treatment of Chorea.—Dr. Thomas B. Peacock, in the recently issued volume of St. Thomas's Hospital Reports, in the concluding portion of a report on cases of chorea thus speaks of the treatment of the disease:

In a large proportion of cases of chorea there is evidence of disorder of the general health and of the digestive organs, the tongue being furred and the bowels confined. When this was the case a purgative was usually first prescribed, such as a calomel and rhubarb powder, or some blue pill and rhubarb, and this was combined with the stomachic mixture (a cold infusion of rhubarb and gentian with soda and ginger), and this treatment was continued till the symptoms of disorder of the digestive organs subsided. In some cases, under this treatment, the choreic movements almost wholly disappeared. In others they were greatly relieved, and the patient was then put upon a tonic course of treatment, quinia and iron with cod-liver oil and a nutritious diet, and an allowance of wine. In others, when the tongue became clean, but the choreic movements still continued, nervine tonics were used; if the patient was pallid and anemic the chalybeate remedies were generally first employed, preference being given to the saccharine carbonate of iron, in doses of five, ten, or twenty grains, three times daily. In other cases citrate or sulphate of iron was given. If, after a fair trial of this, there was little or no obvious improvement in the state of the patient, sulphate of zinc was prescribed, in doses of one or two grains, three times daily, and the dose was increased by one or two grains twice a week, till sickness or nausea was produced, or till the symptoms subsided.* Not unfrequently the zinc was first given, and either remedy was replaced by the other, or by the liq. arsenicalis, if no satisfactory improvement was seen at the end of a week or fortnight. The amendment is often very gradual, and seems rather to accord with the improvement in the general health of the patient than to follow quickly after the use of the remedy. A very good test of the advantage of the treatment is afforded by the state of the pupil; generally, when the symptoms are very active, it is large and shows little or no action under the stimulus of light, but as the symptoms subside, it diminishes in size and is much more readily affected by light.

The movements are occasionally so constant and severe that the patient gets little or no rest at night, and so becomes rapidly exhausted, and the back is apt to chafe and bed sores to form, and indeed it is in this way that the cases generally prove fatal. It becomes, therefore, of great importance that the patient should be quieted, and anodynes are required for this purpose. I have generally preferred to give Dover's powder, frequently in combination with henbane, either at night or at intervals during the day. Sometimes morphia has been used in a similar way, and occasionally it has been employed hypodermically; and more recently chloral has not unfrequently been given at night.

The use of the shower bath, either cold or tepid; or, when the patient is timid, of ablution with tepid or cold water, is often of use in effecting a complete cure after the active symptoms have subsided; and when the patient becomes prostrated nutritious food and wine must be given; and I have sometimes seen great advantage from the use of nutritive enemata with wine, where the patient was becoming rapidly exhausted and could not take an adequate amount of food by the mouth. In one very severe case, in which the skin was excessively dry and harsh, great relief was obtained by the use of the warm bath, followed by the inunction of warm oil.

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* The zinc appears to be more efficacious when the dose is rapidly raised.

ANESTHESIA IN PARTURITION.—Dr. A. H. Halberstadt, a physician of large experience, a prominent member of the Medical Society of the State of Pennsylvania, and of the American Medical Association, at the last meeting of the society read an interesting paper on the above subject, from which we extract these conclusions, drawn from at least one thousand cases under his own observation and management:

First. That the parturient state is the only condition of the system during life in which anesthetics, judiciously administered, are entirely devoid of danger.

Second. That the physiological action of chloroform, ether, and alcohol in a woman during labor is not identical with that in an ordinary subject in a dental chair, or upon the surgeon's table, and from the history of such administration, free from a single well-authenticated case of death, with statistics showing its superiority over venesection, opium, etc., in the desperate emergencies attending irregular labors, as eclampsia, it is fair to infer that this agent is an especial therapeutic indication for parturient women, and should be so regarded in all labors where by its use the pains of the second and third stages could be obviated, and this, too, to the ultimate benefit of the mother and safety of the child.

Third. That in puerperal eclampsia it is especially indicated, because of its direct, rapid and general action, controlling nervous physiological irregularities, exciting secretion, relaxing the os and perineum, and in short so preparing the parts as to aid the accoucheur in his manipulations for the essential emptying of the uterus—to accomplish which venesection, opiates, purgation, counter-irritation, etc., either singly or combined, bear to anesthetics the relation of mere fractions to a grand whole.

Fourth. Its application is universal; no diseased condition of the heart or lungs, at all likely to exist where pregnancy can occur, should forbid its use; for where has a post mortem exomination revealed a dilated and weak right heart from fatty degeneration in the body of a pregnant woman at full term?

Fifth. That in view of its known therapeutic action and safety in the small quantity required to produce narcosis, no use of the forceps, version, nor obstetric operation of any moment, should be performed without it; not only to save the patient from shock and its consequences, but because of the great saving of time and labor, and in most instances the assistance it affords the operator.

Sixth. Owing to the fact that uterine contractions are often lessened by the administration, it is always important to precede it by an oxytocic, in all labors and at any stage, where the pains are slight, so as to increase their force, and also to guard against post partum hemorrhage—a very infrequent occurrence where such precaution is taken.

Seventh. Accidents to the unemptied bladder, ruptures of perineum and sphincter ani, may be prevented, as well as death of the child in prolapsus of the cord, by the facilities afforded for rapid delivery, especially in primiparæ.

Eighth. That in no instance have I seen narcosis of the child attributable to the anesthetic.

Ninth. Without any special reason, excepting the common disagreeable feature of ether, and the supposed risk of chloroform, I have generally used the mixture proposed by the Medico-Chirurgical Society of London, consisting of ether three parts, chloroform two parts, and alcohol one part, being careful as to the quality of the preparations, and having them recently mixed. With this combination I have never been disappointed, or regretted its use; and, in truth, nearly all the troublesome cases I have had after labor were those in which, for some reason, the anesthetic was not used.

Notes and Queries.

Vital Statistics.—The following paper and proposed *act* are from the pen of an eminent lawyer of Lafayette, Ind. The argument, and the bill too—although, of course, the name of the state would have to be changed—are of general applicability; and we take great pleasure in presenting them to our readers: they embody the matured thought of a gentleman who has given much consideration to the matter. Nineteen states now have boards of health, and which one of the eighteen others will have the disgrace of being the last in this important movement?

The wealth and power of the state must depend very largely upon the health and longevity of its inhabitants. A fertile soil, a mild climate, and rich mines, are nature's contributions to our welfare. If we would utilize and improve them, and so make ourselves a rich, prosperous and happy people, we must learn and obey the laws of health, that we may be able not only to labor and accumulate, but also enjoy the fruits of our industry. A sickly and short-lived people are necessarily poor, powerless and miserable.

We have devoted our energies to the physical development of the territory, of the state, and have made the "wilderness to blossom as the rose." We have made wise and liberal laws for the education of our children, and just ones for the government of our people; school-houses and churches abound, and we have taken good care that our moral and religious interests shall not be neglected.

It is strange, but true, that the matters of most vital importance to us as a people, those which alone enable us to utilize and enjoy our natural advantages, those without which life itself is a burden—our health, longevity, and consequent happiness—have received scarcely any legislative attention.

Avoidable sickness and premature death are the great wastes, and cause the most useless burdens of society. Not only is the labor of the poor sick man, or of him who dies prematurely, lost to the community, but he, while living and his helpless family until they can care for themselves, must be supported at the public expense — by the tax-payers of the county. Our poor-houses and hospitals are largely filled with those who, from preventable sickness of themselves or their natural supporters, or the premature death of such supporters, are made involuntary but expensive paupers.

The subject, therefore, of the health of the people is one that merits the most careful investigation, to the end that wise laws may be enacted to aid in the prevention, so far as it is practicable, of sickness and premature death. It would not be difficult to gather statistics, and make computations of the vast amount of pecuniary loss sustained by the preventable sickness and deaths of able-bodied men, and the consequent cost of the support and care of themselves while sick, and their families, by the public.

But it is believed that these general suggestions are sufficient to call attention to a subject which, every intelligent and reflecting mind must admit, merits legislative consideration and action. But hasty and crude legislation upon this important matter will not only fail to benefit, but it will entail needless public expense and disgust the people, and so postpone, if not wholly prevent, the passage of wise sanitary laws.

What is most needed at present, as a preliminary step in the right direction, is a law providing for procuring and preserving vital statistics, to the end that we may know the actual facts, and so be able to apply the proper remedies to correct existing evils. Fortunately our political organization is such that, with a comparatively small amount of labor and at a trifling expense, the necessary statistics on which to base a law for the preservation of health and the prolongation of life can be procured. Already the clerks of our circuit courts are required by law to keep records of all marriages. A registry of births and deaths can readily be kept by the county auditors, through the instrumentality of the township trustees. A law should be passed by the next legislature requiring all physicians and midwives to report to the proper township trustees, all births at which they assist, giving the sex of the children, the date of birth, and the names of parents, so far as known. Physicians should also be required to report in like manner all deaths, giving the sex, name, age, nativity, and cause of death, so far as known, of such persons. These reports should all be made upon uniform blanks kept by the township trustees for the purpose, and should be transmitted quarterly to the auditor of the county. It should be made the duty of the county auditor to make a brief record of these reports of births and deaths; and during the first ten days of January in each year, transmit to the auditor of state a condensed abstract of such record, showing the number of births, the number of deaths, and the sex of persons dying under one year of age, the number between one and five years, the number between five and ten years, and the number in each period of ten years, and the number of deaths from each of the reported diseases. It should be the duty of clerks of the circuit courts, in like manner, to certify annually to the auditor of state, the number of marriages solemnized in their counties, as shown by their marriage record. The auditor of state should be required by law to lay before the General Assembly, at the beginning of each session, a report of the vital statistics of the state, as shown by the reports on file at his office, for their information and upon which to base intelligent action.

After such a law, as above suggested, shall have been in operation for such a reasonable time as to furnish reliable data, the way will be clear for the passage of comprehensive and wise laws upon the subject of protecting health and prolonging life, and thus securing in the highest possible degree the welfare and happiness of the people. It may be added that such a law might be of great incidental value in the future in determining questions of heirship, and the rights of property by descent.

An Act providing for procuring and preserving Vital Statistics, and providing penalties for violations thereof.

SEC. 1. Be it enacted by the General Assembly of the State of Indiana, that there is hereby created in the office of auditor of state a department to be called the Department of Vital Statistics.

SEC. 2. It shall be the duty of the clerks of the several circuit courts of this state, to transmit to the auditor of state, during the first five days of January in each year, a certificate showing the number of marriages solemnized in their respective counties during the year ending on the 31st of December preceding, as the same appears from the marriage certificates in their respective offices. They shall also certify, in like manner, the number of divorces granted by the courts of their respective counties during the same time. Said clerks shall also, within the first five days of January in each year, report to the auditor of his county the names, ages, nativity and cause of death, of all persons upon whom coroner's inquests have been held the preceding year ending as aforesaid.

SEC. 3. It shall be the duty of every physician, midwife, or other person (when no physician or midwife is present), assisting at the birth of any child, to report in writing the fact of such birth, and the sex thereof, together with the names of the parents if known, within fifteen days after such birth, to the trustee of the township where such birth takes place; and if more than one child is born at the same birth, the number and sex of each shall be stated in such report.

SEC. 4. It shall be the duty of every physician attending any person in his or her last sickness, within fifteen days after the death of such person, to ascertain as nearly as possible, and make a written report to the trustee of the township where the death occurs, of the name, sex, age, nativity, and cause of the death of such deceased person.

SEC. 5. When two or more physicians or midwives shall have assisted at any birth, or two or more physicians shall have attended any person in his or her last sickness, the duty of making such reports, as are required in the preceding sections, shall devolve on the senior physician or midwife, as the case may be. If any township trustee shall have credible information of any birth or death within his township, which shall not have been reported to him as required by this act, he shall, upon such information, make a statement thereof himself and report it as hereinafter provided.

SEC. 6. It shall be the duty of all township trustees to return to the auditor of their respective counties, within five days after the first days of January, April, July and October in each year, the reports made to them of births and deaths as hereinbefore provided, during the three months next preceding the first days of these months.

SEC. 7. Every county auditor shall keep a public record, ruled in proper columns, in which he shall enter in alphabetical order the births reported, with the dates thereof, and names of the fathers, sex of the children, and township of their birth.

SEC. 8. Every county auditor shall keep a like public record, ruled in proper columns, in which he shall enter in alphabetical order the names of all persons reported as aforesaid as having died, with the sex, age, nativity, and cause of death of each.

SEC. 9. Every county auditor shall annually, during the first ten days of January, make out, certify, and transmit to the auditor of state, an abstract from said records of births and deaths, in the office of such county auditor; in which abstract shall be shown the number of births, sex of children born, and the number of deaths reported during the year ending on the thirty-first of the preceding December. Such abstract shall contain a statement of the number dying under the age of one year, the number aged more than one and less than five years, the number aged from five to ten years, the number aged from ten to twenty years, and so on by decades up to one hundred years, and the number over one hundred years. Such abstract shall also state the number of deaths from each disease, or from casualty, or otherwise, as the same shall appear from the records in said county auditor's office.

SEC. 10. It shall be the duty of the auditor of state, before the first day of February in each year that the legislature shall be in session, to make a report to that body, showing in a condensed form all the facts that shall have been reported to him in reference to the marriages, divorces, births and deaths within the state, for the two years ending on the preceding thirty-first day of December.

SEC. 11. It shall be the duty of the auditor of state, immediately after the passage of this act, to prepare concise forms of blanks, suitable for the reports of births and deaths required to be made to township trustees, also the forms of records required to be kept by the county auditors, and to transmit such forms to the several county auditors without delay.

SEC. 12. It shall be the duty of the board of commissioners of the several counties in this state, to provide, for the use of their respective auditors, the necessary records; and for the several township trustees in their county the necessary blanks, as prepared by the auditor of state, to enable them to comply with the requirements of this act.

SEC. 13. Any practicing physician or professional midwife, who shall fail or refuse to make any reports to the proper township trustees, as required by this act, shall be deemed guilty of a misdemeanor, and upon conviction shall be fined in any sum not exceeding twenty-five dollars.

SEC. 14. Any township trustee, clerk or county auditor, who shall fail to make any report or abstract required of him by this act, shall be deemed guilty of a misdemeanor, and upon conviction shall be fined in any sum not less than ten nor more than one hundred dollars.

SEC. 15. The provisions of this act, in relation to making reports of marriages, divorces, births and deaths, shall take effect and be in full force on the first day of July, 1879.

THE SPRINGFIELD MEETING OF THE TRI-STATE MEDICAL SOCIETY.—The annual meeting of this society was held at Springfield, Ill., on the 13th, 14th and 15th of last month. While the attendance, more especially of Illinois doctors, was not as large as anticipated, yet the sessions were very interesting. Many valuable papers were read—two of which we take great pleasure in presenting our readers—and animated, instructive discussions had. Popular addresses were delivered on two of the evenings—the first evening by Professor Allen of Chicago and Dr. Singleton of Paducah, the second by Professor Gregory of St. Louis, while the third evening was occupied by a well arranged, very pleasant exhibition of many microscopes and microscopic objects of interest.. Professor Ireland, of Louisville, was elected President for the ensuing year, and the next meeting will be held at Evansville the first Tuesday of November, 1879.

EULOGY UPON THE LATE DR. J. L. COOK.—Dr. J. W. Singleton, of Paducah, delivered at Hopkinsville, Ky., October 30th, an eloquent eulogy upon the late Dr. J. L. Cook, who died at Hickman, Ky., on the first of October. Dr. Cook was another of those brave men of the profession who have fallen victims to yellow fever in their efforts to save others. He had contributed several articles of great merit to the *American Practitioner*, and was held in high esteem both by the public and the profession. Dr. Singleton has uttered no word too laudatory of this heroic martyr.

THE AMERICAN PRACTITIONER FOR 1879.—*Publishers' Notice.* It is the desire of the editors to add sixteen pages to each issue of the journal. Such addition can be readily made, and will be, if subscribers, *especially those that are delinquent,* promptly remit their subscriptions. With the well-established reputation of the *American Practitioner*, and with the extraordinary attractions offered for the ensuing year, the publishers have a right to expect a large increase in the subscription list of the journal, and they feel confident that its hundreds of friends will see such increase is made certain.